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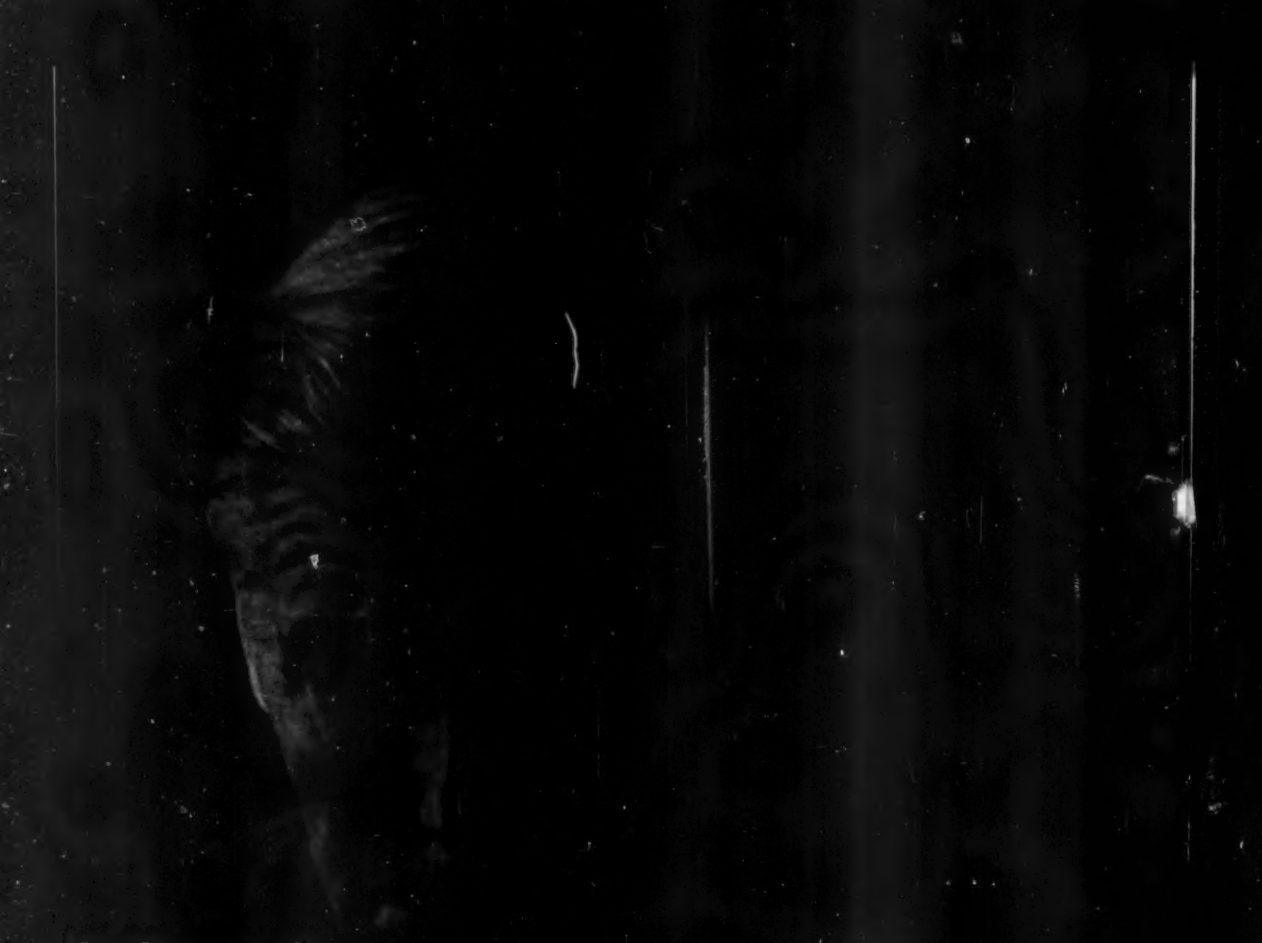
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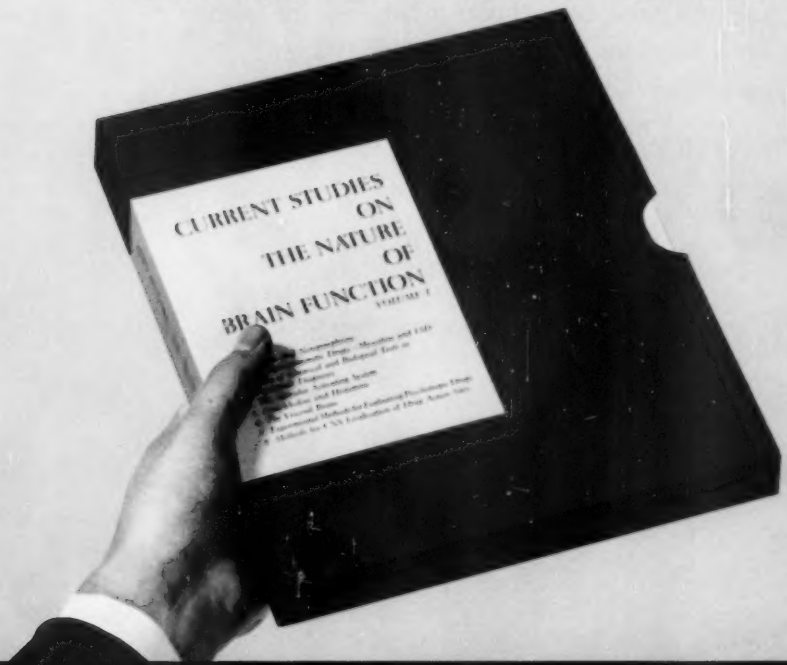
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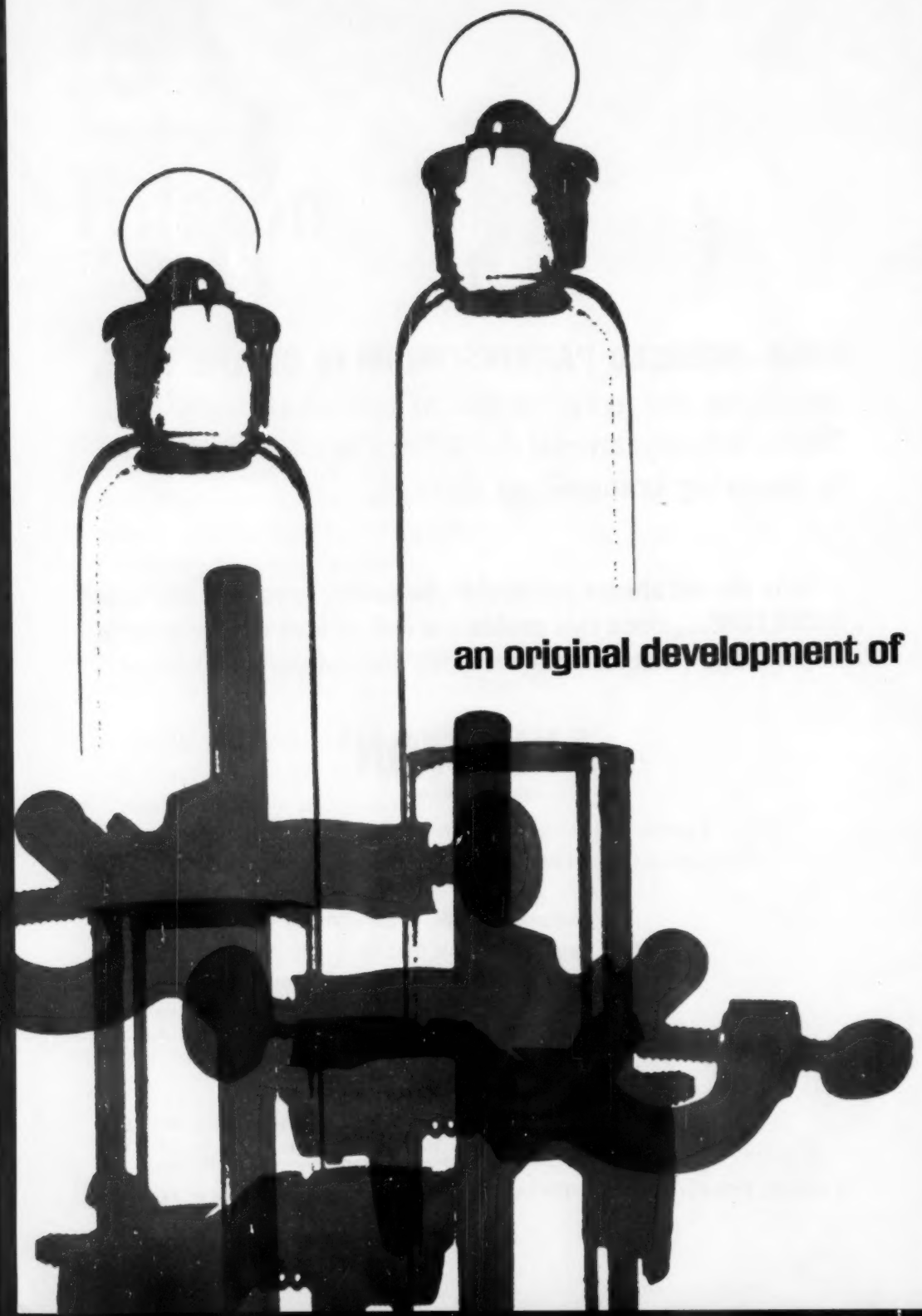
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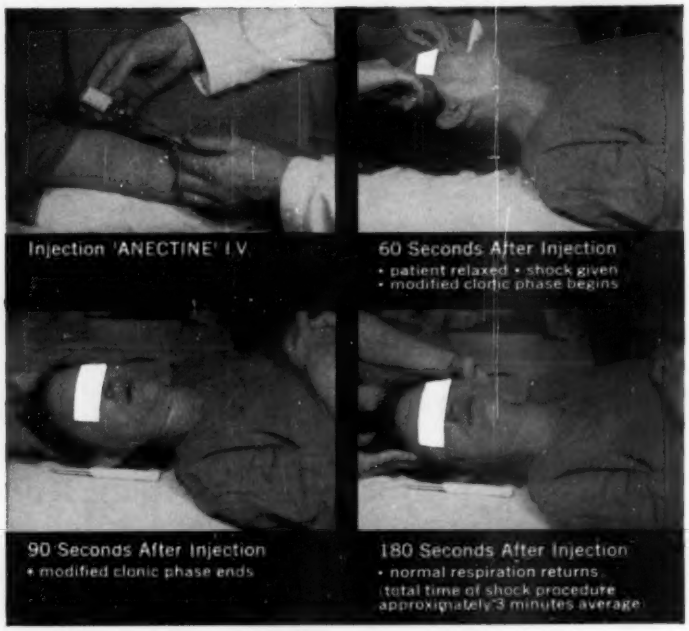
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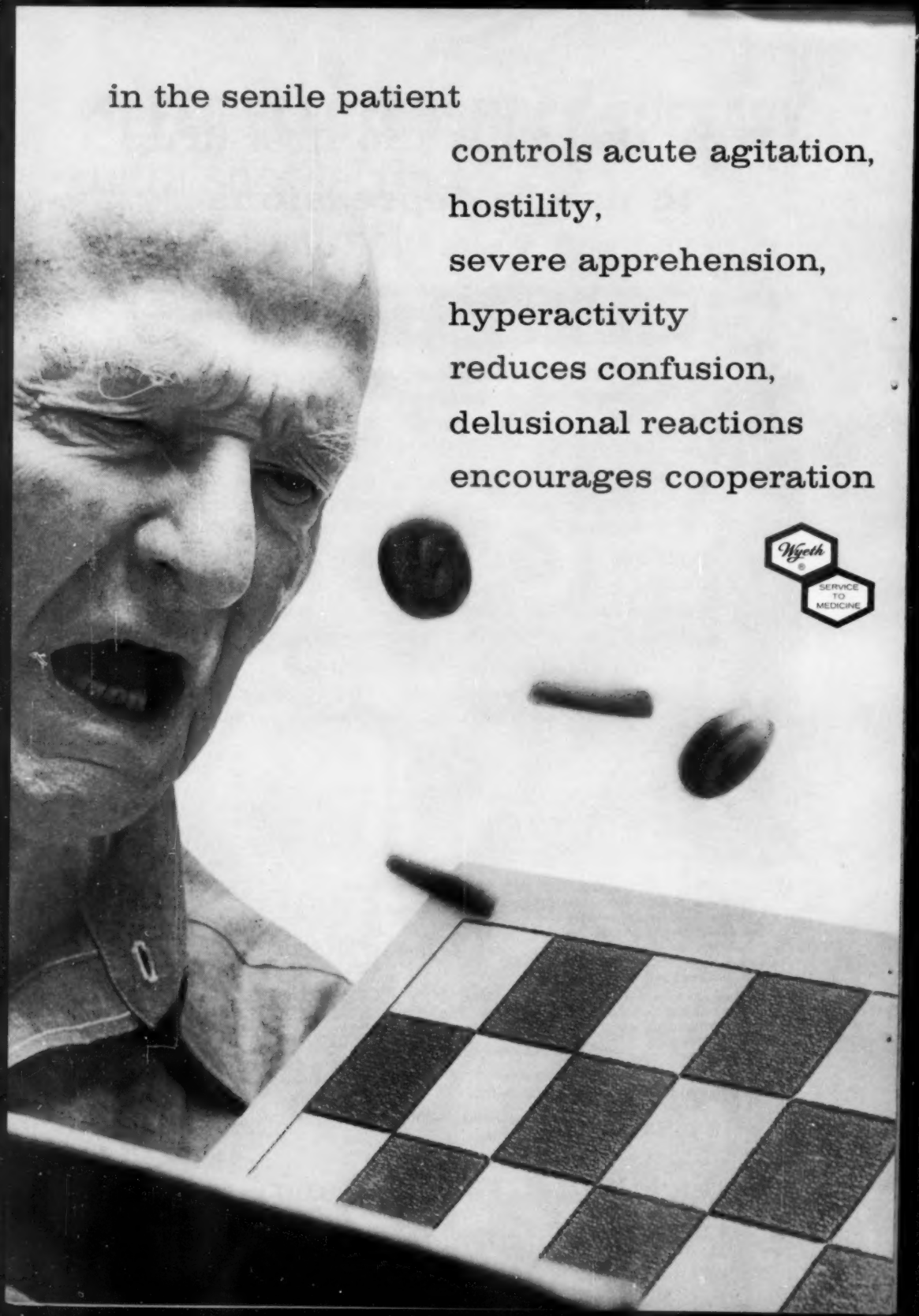
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Bibliography (*11 clinical studies, 764 patients*):
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Medical uses. Antiemetic.
Usual dose is 25 to 50 mg. repeated at 4 to 6 hour intervals. When oral route is not feasible, 50 mg. I.V. or I.M. will usually control the symptom, but oral medication should be initiated as soon as feasible.

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THE CURRENT STATUS OF ARMY PSYCHIATRY[1]

COLONEL ALBERT J. GLASS, (M.C.), USA,
LT. COL. KENNETH L. ARTISS, (M.C.), USA,
MAJOR JAMES J. GIBBS, (M.C.), USA, AND
CAPTAIN VINCENT C. SWEENEY, (M.C.), USA[2]

INTRODUCTION

At periodic intervals since World War II, there have appeared authoritative reports on the current status of Army psychiatry. In 1948 and 1951, Caldwell(1, 2) reviewed the problems of Army psychiatry following World War II. Glass in 1953(3) and Peterson in 1955(4) described the operation and results of the Army combat psychiatric program during the Korean War. In 1956 Allerton and Peterson(5) surveyed 5 years of preventive psychiatry effort provided by Mental Hygiene Consultation Services which had been gradually reestablished with the onset of the Korean conflict. This presentation will report on another 4 years of the Army psychiatric program (1956-1960) and its further progress towards preventive orientation and practice.

It should be recognized that the conceptual framework and operational techniques as presently employed in the Army psychiatric program are a direct outgrowth of experiences with acute emotional disorders in World War II and the Korean conflict. Under conditions of wartime situational stress it became apparent that adjustment and military effectiveness were the complex resultant of multiple factors. The entire milieu of the soldier seemed to be involved which, in addition to the intensity of danger or deprivation, included motivation, cohesiveness, and other morale aspects of the group, the attitudes and strengths of buddies, the competency of leaders, the efficiency of communication, the adequacy of training, the degree of physical fatigue, the quantity and quality of supplies and weapons and even the medical criteria and disciplinary penalties for removal from the stressful situation. Personality configuration as a behavioral determinant while significant was rarely decisive and in most cases of less importance than situational and social forces. Indeed the frequency of emotional disorders seemed to be more related to the characteristics of the group than the character traits of the individual. It was this awareness of non-effective military behavior, as a more common result of difficulties in the environment and interpersonal relationships of the soldier than manifestations of individual psychopathology which has been responsible for a gradual displacement of psychiatric personnel from their usual role and location in a hospital and clinic setting to the military community. This field approach has permitted a more realistic observation of the maladjustment process; brought psychiatric personnel into a working relationship with military supervisors; and has made possible the utilization of milieu as a major instrument in the development of techniques for prevention and treatment. As a result, the Army psychiatric program has been developed in the following three areas of endeavor.

1. Primary Prevention: Attempts to favorably influence the conditions under which soldiers may live, work or fight so that there is less likelihood of disabling maladjustment.

2. Secondary Prevention: The early recognition and prompt management of emotional or behavioral problems on an outpatient basis while the individual, still a member of his unit, struggles to cope with his environment or situation.

3. Tertiary Prevention: The employment of milieu as the principal therapeutic tool for persistent and severe mental disorders who require hospitalization. This technique, still exploratory and in the research stage, was designed to reduce chronic disability and produce a sufficient degree of rehabili-

[1] Read at the 116th annual meeting of the American Psychiatric Association, Atlantic City, N. J., May 9-13, 1960.

[2] Office of the Surgeon General, Dept. of the Army, Washington 25, D. C.

tation so that favorable cases can be returned to effective military duty.

In recent years, including the period covered by this report, Army psychiatry has expanded those procedures and methods that may be profitably applied in the foregoing several areas of preventive psychiatry which have come to include disciplinary problems as well as symptom disorders. The objective of Army psychiatry has become the reduction of non-effective duty performance due to psychological reasons regardless of manifestations.

PRIMARY PREVENTION

In the area of primary prevention, the staff advisory function of the military psychiatrist is of paramount importance. Experiences indicate that the effectiveness of the psychiatrist in this role cannot be equated with the merit or excellence of his recommendations. More important is the quality of the relationship established by the psychiatrist with commanders and other supervisory personnel which to a large extent determines whether his suggestions will receive favorable consideration. Generally this relationship develops as a result of the activities of the psychiatrist in his professional management of referred problems. Unrealistic recommendations for special handling or assignment without reference to the practical limitations of the military situation or the forwarding of psychiatric reports replete with professional jargon produce a negative impression and the psychiatrist is judged accordingly. On the other hand, the psychiatrist who not only displays professional skill in the management of individual cases but renders decisions and recommendations which are meaningful and relevant from a military standpoint becomes highly regarded as a medical officer "with his feet on the ground." The psychiatrist, new to the service, cannot hope to achieve such military sophistication by limiting his professional activities to a traditional office or hospital practice. In order to acquire this background knowledge he must acquaint himself with the military environment, its rules, regulations, culture, mores and operational procedures by frequent visits to various post or unit activities usually in connection with individual case referral.

When the psychiatrist establishes a favorable advisory relationship with military leaders a usable channel of communication is created for the transmission of psychiatric, psychological, and sociological information. This communication mechanism has been utilized as an instrument of primary prevention by psychiatric personnel as follows :

Firstly, there is the impact upon the involved non-commissioned and commissioned officer when the psychiatrist deals effectively with an individual case. These military supervisors are comparable to the so-called "caretakers" of civil life(6) occupying a role much like that of a foreman or teacher, or even a parent. Thus they are in an optimum position to exert a favorable influence upon the adjustment of subordinates. When military supervisors are afforded an opportunity to better understand the underlying causes of deviant or neurotic patterns of behavior, they often become more knowledgeable in the management of personnel as well as more efficient in the early recognition of maladjustment problems.

Secondly, there is the more direct employment of the military psychiatrist staff advisory function aimed at changes of rules, directives and regulations. Psychiatrists assigned to a major headquarters are concerned with personnel policies such as selection criteria for induction or enlistment, assignment limitations, medical and administrative standards for retention and discharge and procedures for the rehabilitation or elimination of individuals who exhibit deviant behavior. At the level of post headquarters and operational units, the psychiatrist submits recommendations which are relevant to local problems such as the early recognition and correction of disciplinary offenders, maladjustment of trainees, accident prevention and morale difficulties of particular units. An invaluable tool for the military psychiatrist at all levels and one which offers impressive evidence to commanders is the epidemiological approach. By this technique the psychiatrist can demonstrate significant differences in the incidence of non-effective behavior among units

of a post or division who are apparently exposed to the same environmental hazards and hardships. These data raise questions which inevitably focus attention of senior commanders upon the important areas of leadership or situational circumstances which could account for such differences among units.

SECONDARY PREVENTION

Secondary prevention, or the doctrine of early identification and prompt treatment received its major impetus during World War II when Army psychiatrists were confronted with a vast number of acute and apparently disabling emotional disorders. Hospitalization was repeatedly demonstrated to have little or no beneficial influence. For this reason psychiatrists, both in oversea theaters and in the United States, spontaneously moved to establish outpatient psychiatric units near troop concentrations. Out of these experiences were evolved the secondary prevention techniques of Army psychiatry as exemplified by the current practices of the Mental Hygiene Consultation Service which has become a permanent facility on most Army posts in the United States and an integral component of the medical service of all oversea divisions.

The Post Mental Hygiene Consultation Service is located near the troop population. It functions as an operational center from which personnel accomplish assigned tasks in the field. The staff consists of psychiatrists, officer social workers and clinical psychologists, enlisted social work and psychology assistants, and supporting clerical personnel. To insure continuity of patient care the senior psychiatrist of the Mental Hygiene Consultation Service is also in charge of the relatively small psychiatric inpatient service of the local Army hospital. Referrals are derived mainly from unit commanders and post dispensaries.

In recent years the operational practices of Mental Hygiene Consultation Services have undergone a gradual but definite change in the direction of a so-called field service approach(7). Particularly in basic training centers and other large posts there have been developed techniques of sending field workers, usually mature enlisted social work assistants, to interview the referred soldier in his unit area. This intake procedure avoids the usual clinic atmosphere and its suggestion of illness or accentuation of dependency needs, prevents the excess loss of training or duty time and facilitates the gathering of collateral information from others, particularly military supervisors. It has also been found that the soldier in his own surroundings can discuss personal and situational problems more freely with another enlisted man than in the usual intake interview accomplished at the clinic building.

The enlisted social work assistant is given instruction in this peripheral or milieu approach, preparatory to his field assignment. Further training includes working with an experienced enlisted field social worker prior to assuming responsibility for handling referrals. The enlisted field worker endeavors to identify the salient features of the adjustment problem which includes the gathering of pertinent collateral information. Then he discusses the case with his supervisor, usually a social work officer, concerning the further exploration and management of the problem. One Mental Hygiene Consultation Service on a large basic training post utilizes group therapy as the preferred method of further treatment. Therapy groups have been established in each training regiment which are conducted by a social work officer with an enlisted field worker serving as a recorder. Other Mental Hygiene Consultation Services mainly employ individual counseling by a social work officer or an experienced enlisted field worker supervised by a professional officer of the clinic staff.

The social work staff's handling of routine referrals permits the psychiatrist to function as a consultant for the difficult, or controversial cases. In addition, the psychiatrist evaluates at the clinic those individuals who present suspected organic disease, psychotic or severe neurotic symptomatology, and problems of serious administrative consequence. The psychiatrist takes every opportunity to discuss individual case referrals with the appropriate unit commander by phone or preferably in person rather than rendering formal written reports.

The operational practices and thus the

effectiveness of the Mental Hygiene Consultation Services are influenced to a large extent by the psychiatrist's assertive leadership, confidence and experience with the field approach. As the leader of the clinic group the psychiatrist frequently meets informally with his staff to discuss policies and specific problems. He conducts case seminars and takes other occasions to educate and train his staff in the use of techniques appropriate to their development.

In order to prevent the recidivism of military offenders, stockade[3] screening techniques initiated on several posts(8, 9), were later elaborated into an Army-wide program through the combined efforts of the Office of The Surgeon General and the Office of The Provost Marshal General. In this program Mental Hygiene Consultation Service personnel make regularly scheduled visits to the stockade. Each new prisoner is interviewed by an enlisted social work assistant who also gathers pertinent collateral information whenever possible. Equipped with this intake data and the observations of confinement personnel, the social work officer interviews each case and in consultation with the psychiatrist makes recommendations to the confinement officer concerning clemency or parole. The psychiatrist interviews all prisoners who are considered to present serious or unusual problems in behavior and all prisoners who are deemed unsuitable for further military service. In the latter case the psychiatrist renders an appropriate recommendation for administrative discharge. Prisoners restored to duty are given assistance by the field social work personnel with problems of unit reintegration. Mental Hygiene Consultation Service personnel meet periodically with the confinement staff to discuss techniques, attitudes, and other measures which may enhance the correctional atmosphere of the stockade.

Experience with the stockade screening program has shown that by the time the soldier was involved in sufficient difficulty to require confinement, often he had developed fixed, deviant patterns of behavior and was neither interested in, nor amenable to, corrective measures. It seemed reasonable then, to devise a method of aiding these individuals at an earlier stage of their maladjustment. Since few soldiers are confined as the result of their first court-martial, this event has been utilized as a means of recognizing the early identification of the problem soldier and require psychiatric evaluation and possible treatment at this time. This procedure is gradually being implemented on many posts in the United States with the endorsement and cooperation of the local post commander. In this first court-martial screening program, personnel of the Mental Hygiene Consultation Service function in a manner similar to the stockade screening effort as described above.

[3] The Army stockade is a confinement facility for the incarceration of military personnel who have committed relatively minor offenses. In contrast, the Army disciplinary barracks normally provides for the confinement of the more serious military offender.

TERTIARY PREVENTION

Timely and aggressive intervention aimed at "heading off" the development of chronically disabling states has long been one of the major prerogatives of preventive medicine. Army psychiatry, well aware of the significance of such tertiary preventive measures, has added research projects, designed to come to grips with this problem, to its already broad program conducted at the Walter Reed Army Institute of Research under the direction of David McK. Rioch (10).

Early in 1956, one of the authors, Lt. Col. Kenneth L. Artiss, M.C., was assigned to Walter Reed Army Institute of Research to investigate the potential value of milieu therapy as an adjunctive measure to the already established treatment procedures then in use at Army psychiatric treatment centers. To thoroughly test the method it was decided to use acutely schizophrenic soldiers as subjects.

A ward at Walter Reed General Hospital was provided, beds removed until only 10 remained. It was staffed by one physician, one nurse, 12 to 14 neuropsychiatric technicians (corpsmen or attendants) for the 24 hour care of 8 to 10 acutely schizophrenic soldiers. A comprehensive feedback type of reporting system was established, using verbatim notes, tape recordings and

a high level of intra-staff communication as its main tools(11).

In the 3½ years of operation, this Milieu Therapy Unit, limiting itself to 6 months or less of treatment, has returned 64% of its treated patients back to military duty. While long-term follow-up information has not as yet been completed, initial surveys indicate that over-all results may turn out as encouraging as the percentage of patients returned to duty. Since these results were obtained with no specific attention paid to criteria of treatability and by a pilot-project staff, further exploratory work is being undertaken to determine the effects of selection of patients, selection and training of staff members, and staff intercommunication systems. Another pilot-type ward has been in operation at Valley Forge General Hospital for well over one year.

In order that information obtained from the patients during treatment could be evaluated in terms of relevancy to present change as well as past history, two separate investigative teams were used concurrently; one team conducted tape recorded interviews with fellow squad members and work associates of the hospitalized soldiers, and the other team visited the home, community, and school for definitive data. Through the use of this method it has been demonstrated(12) that the schizophrenic symptom may be used as an informative and communicative device; and that, furthermore, analysis of its social usage may contribute heavily towards understanding the "major message" by the use of which the patient deals with his society in a goal directed manner, having specific aims in view.

Group movements, group values and group processes contribute significantly to the discrete momentary behavior of the individual. Such a statement as this may now be successfully defended by reference to the accelerated accumulation of research findings in social psychology during the past 30 years(13); by the experiences of combat psychiatry(14); as well as by the findings of multi-disciplinary research in social psychiatry(15) during the past decade. Milieu therapy draws from all these sources in addition to some more definitely therapeutic endeavors of recent years, such as those of Harry Stack Sullivan at Sheppard and Enoch Pratt Hospital(16), Maxwell Jones in England, and Harry A. Wilmer with Navy personnel.[4]

The basic philosophy used by the treatment unit appears to contain three major elements:

1. *The schizophrenic can be understood.* This is to say that if enough trained people work with him closely enough and correlate their observations, his "major message" will become clarified and his behavioral goals known.

2. *Understanding him helps him.* This is to say that "being understood" is a major step in the direction of successful group or social living—in that it leads to relatedness (17).

3. *Working with others is a therapeutic (learning) experience for him.* This is to say that his previous attitudes have prevented his smoothly learning social skills—operationally he is found to be socially infantile and to "recover" must accumulate role-taking abilities *in groups*, just as others do.

This treatment group which includes staff and patients, has a message for its single patient members which is as follows: "your problems are my problems, and my problems are your problems; we'll not abandon each other." At first glance this message may seem unrelated to combat psychiatry but upon closer inspection it serves to remind us of one of the significant lessons learned from wartime stress relative to the supportive impact of group cohesiveness.

RESULTS

The rates indicated in the statistical data to be discussed below express the incidence of phenomena as they occur in a thousand troops during a given calendar or fiscal year.

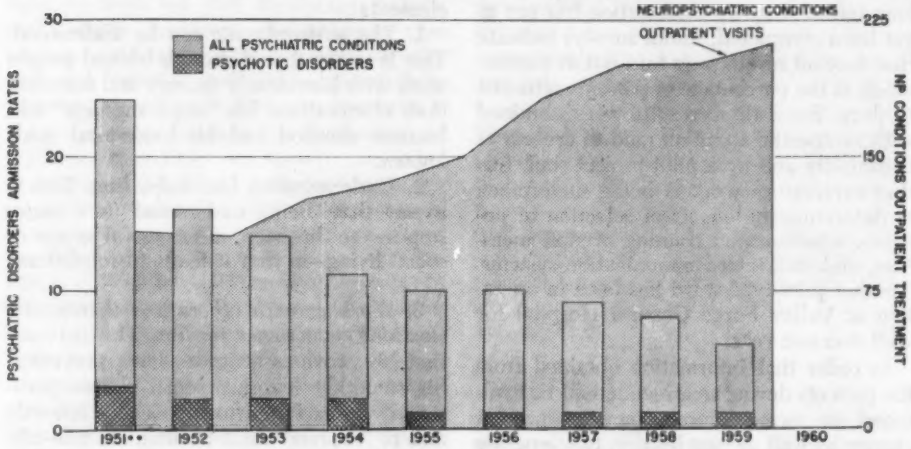
Chart 1 portrays a decreasing rate of psychiatric hospitalization[5] during and since the Korean War coincident with a steady increase in outpatient psychiatric treatments. This chart, previously reported by Allerton and Peterson(5) on the basis of results up to and including the year 1955, illustrates an additional 4 years of experi-

[4] For a more complete bibliography see Reference 12, pp. 38-39.

[5] Includes individuals admitted to quarters and excused from duty for more than 24 hours.

CHART 1

HOSPITAL ADMISSION RATES AND OUTPATIENT VISITS' RATES PSYCHIATRIC CONDITIONS, PER 1000 TROOP STRENGTH PER YEAR FOR ACTIVE DUTY ARMY PERSONNEL WORLD WIDE



*PRIOR TO JULY 1956, DATA REPRESENT THE NUMBER OF TREATMENTS ADMINISTERED BY ARMY TREATMENT FACILITIES FOR NP CONDITIONS PER 1000 AVERAGE STRENGTH PER YEAR. BEGINNING WITH JULY 1956, DATA REPRESENT THE NUMBER OF VISITS TO ARMY MEDICAL TREATMENT FACILITIES FOR NP CONDITIONS. INCLUDES A CONSTANT, APPROXIMATELY 2% ADMIXTURE OF NEUROLOGICAL CONDITIONS.

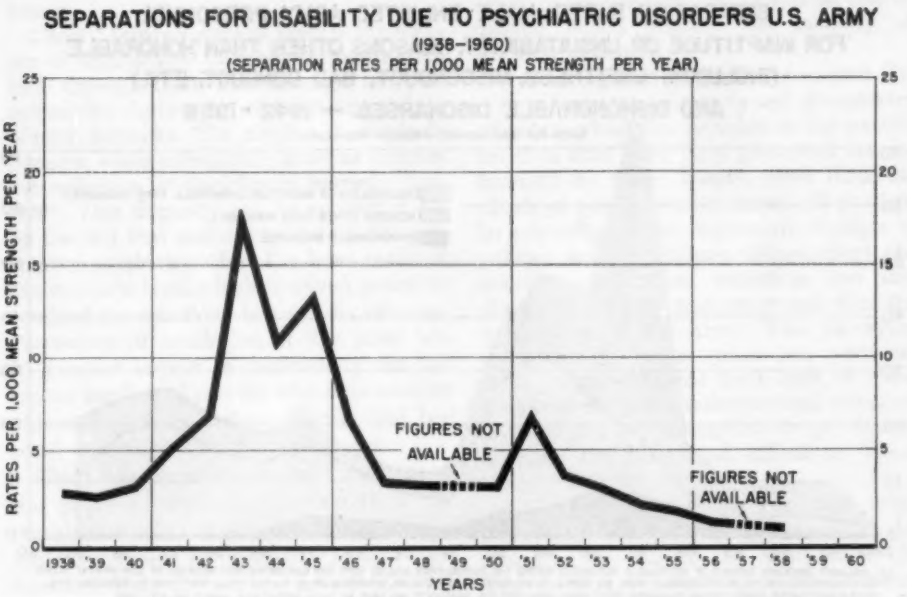
**OUTPATIENT DATA FOR 1951 ARE FOR THE PERIOD JUNE-DECEMBER ONLY

ence with secondary prevention during a peacetime era. It should be noted that total psychiatric admissions declined to 7 per thousand per annum in 1959, the lowest rate of a 22-year period (1938-1959) for which comparable statistical data are available (18). However, admissions for psychotic disorders have been less affected. Apparently extramural management has not been so successful in preventing the hospitalization of the more severe mental disorders. Indeed, admission rates for psychoses in the U. S. Army have been relatively constant for over 40 years regardless of war or peace or other environmental variables. The decreased incidence of psychoses since 1955 as indicated in Chart 1 in actuality a gradual decline, is perhaps best explained by a reduction in the input of new military personnel. (See Table 1.) It is known that 65 to 75% of psychotic disorders in military personnel arise from men with less than two years of service.

A legitimate question may be raised concerning subsequent effectiveness of those individuals who were maintained on a duty status. A partial answer to this question is given in Chart 2 which illustrates a gradual decrease of medical discharges for psychiatric illness since World War II. Except for a temporary rise during one year of the Korean War (1951) medical separations for psychiatric reasons continued to decline even during the wartime period and thereafter. These data indicate that the prevention of hospitalization did not produce mental disease so severe or chronic as to require medical separation. From other statistical data not shown here it can be categorically stated that there has been no compensatory increase of medical separations for illness or injury which could account for the discharge of psychiatric disorders concealed as organic or "psychosomatic" disease.

Any evaluation of a program aimed at the reduction of non-effective military performance must include its impact upon the incidence of behavioral abnormalities which

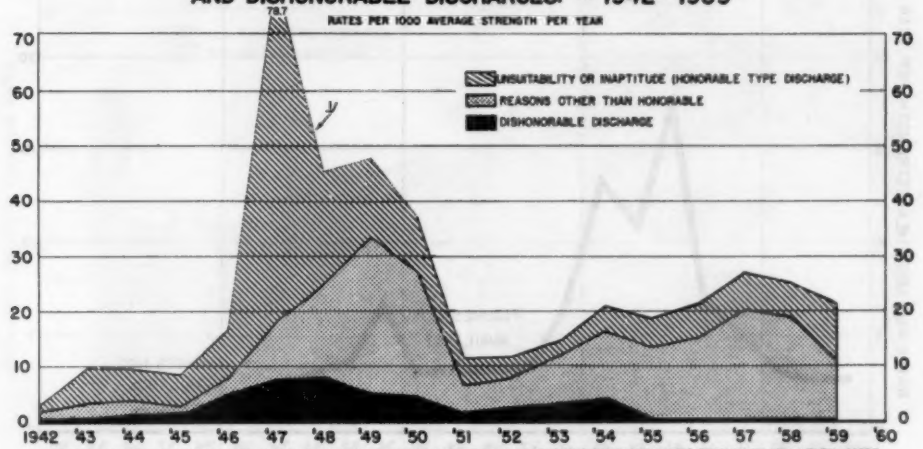
CHART 2



were sufficiently deviant as to cause removal from duty. It may be argued that decreased rates of hospitalization and medical discharge for psychiatric illness could be accounted for by an increase of administrative separations for unsuitability, unfitness, misconduct and the like. To shed light upon this question, Chart 3 gives rates of administrative separation for various causes from 1942 through 1959. It is apparent that elimination for behavioral reasons reached their lowest levels during the war years (1942-1945/1951-1953). This appears to be a regular recurring phenomenon which is believed due to more liberal policies of retention during wartime and a dilution effect from large inputs of inductees who generally require considerable time before their share of behavioral and disciplinary problems result in elimination procedures. In sharp contrast is the marked rise of administrative discharges in the postwar period. The smaller and cadre-type Army in peacetime has less opportunities for the utilization of marginal personnel particularly those who exhibit unsuitable or deviant behavior. There are also a number of behavioral and disciplinary problems from the previous wartime period which ultimately result in administrative and court-martial action in the postwar era. It should be noted that following the Korean War, rates of discharge for administrative and disciplinary reasons did not rise to nearly the high levels of the post-World War II period. It is herein contended that secondary prevention is at least in part responsible for this result. Mental Hygiene Consultation Services which were reestablished during the Korean War were continued and strengthened following the cessation of hostilities in contrast to their discontinuance with the rapid demobilization after World War II. Moreover, beginning in 1958, administrative discharges have begun to decline along with the decrease of psychiatric admissions and separations. Note also the recent trend for administrative separations to result in a higher proportion of discharges under honorable conditions. This indicates that behavioral problems are evaluated early in the course of their maladjustment

CHART 3

SEPARATION RATES, MALE ENLISTED ARMY PERSONNEL FOR INAPTITUDE OR UNSUITABILITY, REASONS OTHER THAN HONORABLE (INCLUDING UNFITNESS, MISCONDUCT, BAD CONDUCT, ETC.) AND DISHONORABLE DISCHARGES. — 1942 - 1959



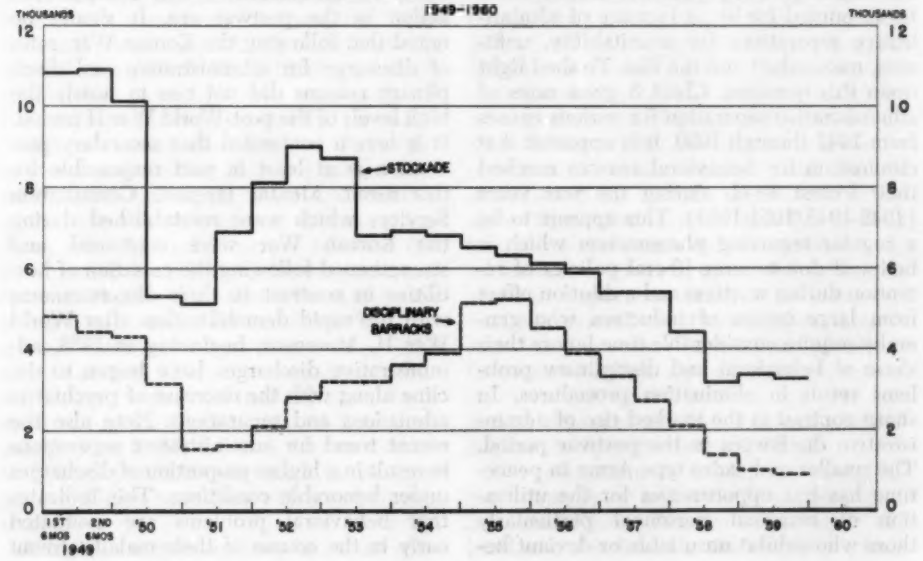
1/ INCLUDES UNKNOWN NUMBER OF INDIVIDUALS SEPARATED DURING THE PERIOD FROM AUGUST 1946 THROUGH MARCH 1950 BECAUSE OF LOW MENTAL SCORE (AGCT SCORE BELOW 70), IN ACCORDANCE WITH WD CIRCULAR 241 (DATED AUGUST, 1946), WD CIRCULAR 93 (DATED APRIL, 1947), AND DA CIRCULAR 295 (DATED SEPTEMBER, 1948), ENDING 28 MARCH 1950) WHICH PROVIDED FOR IMMEDIATE RELEASE OF SUCH INDIVIDUALS UNDER AR 615-389.

SOURCE: DEPARTMENT OF THE ARMY - OTSG - STATISTICAL DIVISION.

CHART 4

STOCKADE AND ARMY DISCIPLINARY BARRACKS

PRISONER CONFINEMENT RATE PER 1,000 ARMY STRENGTH



before accumulating an impressive record of antisocial behavior or disciplinary offenses.

Chart 4 shows a marked drop in the number of disciplinary barracks prisoners from 1956 through 1959. This decrease has permitted the closure of 4 of the 5 Army disciplinary barracks. The decline in stockade inmates, while substantial, is not as large as the reduction of disciplinary barracks prisoners. This disparity can be accounted for by the fact that major emphasis in the preventive psychiatry effort has been made at the stockade level which involved prisoners confined for relatively less serious offenses. Prevention of recidivism at this point has its greatest impact in diminishing the potential number of persons who may commit repeated or more serious offenses and become disciplinary barracks prisoners.

Chart 5 demonstrates that the decrease of the prisoner population is due to a diminished number of offenders rather than a rapid movement of prisoners through confinement. Note the marked drop in general courts-martial since 1956 from which disciplinary barracks prisoners originate. In contrast there is only a modest decrease of summary courts-martial which infrequently result in confinement and of special courts-martial which produce the majority of stockade prisoners.

It is recognized that rates of mental disorders, behavioral deviants and disciplinary offenders which are included in the statistical data that have been presented are influenced by many factors other than the efforts of psychiatric personnel. Of particular relevance in this respect are changes in policies and regulations which affect the selection, utilization, retention and discharge of military manpower and thus the composition of the Army. Two important alterations in recent years are pertinent since on an empirical basis both of these changes favored the induction and retention of personnel less susceptible to psychiatric disorders and behavioral difficulties. These changes are :

1. Recent increases in pay and other career incentives which, together with a decrease in the size of the Army since the Korean War, has resulted in an increased proportion of soldiers with several years of service over that of men with less than two

CHART 5

COURT MARTIAL RATES, BY FISCAL YEAR, 1946-1960
ARMY ACTIVE DUTY PERSONNEL, WORLDWIDE

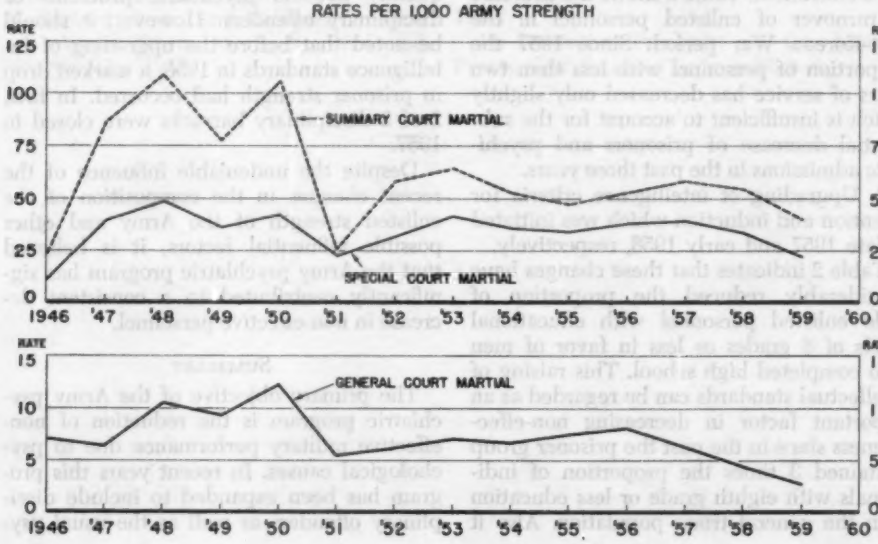


TABLE 1

YEARS OF SERVICE OF ENLISTED MEN IN THE U. S. ARMY*

Date	Total Enl. Strength	Years of Service: Under 2	2 to 6	Over 6
	%			
30 June 54	100.0	72.2	11.5	16.3
31 May 55	100.0	64.6	15.5	19.9
31 May 56	100.0	55.7	20.5	23.8
31 May 57	100.0	52.1	21.6	26.3
31 May 58	100.0	50.6	17.7	31.7
30 June 59	100.0	49.0	17.0	34.0

*Sample survey of Military Personnel (RCS AG-366)

TABLE 2

PERCENTAGE DISTRIBUTION OF HIGHEST EDUCATIONAL LEVEL OBTAINED TOTAL ENLISTED MALE MILITARY PERSONNEL—U. S. ARMY*

Completed Years of Education	30 June 1953	30 June 1954	30 June 1959
13-16+	13.9	15.0	17.4
12	35.3	35.9	53.0
9-11	27.2	26.1	18.8
5-8	23.6	23.0	10.8

*Sample survey of military personnel (RCS AG-366)

years of service. It is well known that maladjustment problems are more prevalent among new arrivals to the Army as compared with individuals in their second and third enlistment. Table 1 shows the decrease in turnover of enlisted personnel in the post-Korean War period. Since 1957 the proportion of personnel with less than two years of service has decreased only slightly which is insufficient to account for the substantial decrease of prisoners and psychiatric admissions in the past three years.

2. Upgrading of intelligence criteria for retention and induction which was initiated in late 1957 and early 1958, respectively.

Table 2 indicates that these changes have considerably reduced the proportion of male enlisted personnel with educational levels of 8 grades or less in favor of men who completed high school. This raising of intellectual standards can be regarded as an important factor in decreasing non-effectiveness since in the past the prisoner group contained 3 times the proportion of individuals with eighth grade or less education than the general troop population. Also it is a reasonable assumption that individuals with lower intellectual capability have greater difficulty in adjustment than persons of average intelligence and thus more frequently become psychiatric problems or disciplinary offenders. However, it should be noted that before the upgrading of intelligence standards in 1958, a marked drop in prisoner strength had occurred. In fact, 2 of 5 disciplinary barracks were closed in 1957.

Despite the undeniable influence of the recent changes in the composition of the enlisted strength of the Army and other possible influential factors, it is believed that the Army psychiatric program has significantly contributed to a consistent decrease in non-effective personnel.

SUMMARY

The primary objective of the Army psychiatric program is the reduction of non-effective military performance due to psychological causes. In recent years this program has been expanded to include disciplinary offenders as well as the usual psy-

chiatric disease categories. To implement this program, psychiatric personnel have been displaced from the hospital or clinic setting to the military community. This field approach has made possible the utilization of milieu as a major instrument in the development of primary, secondary, and tertiary techniques of preventive psychiatry. Statistical data are submitted which indicate that the Army psychiatric program has made significant contributions towards achieving the lowest recorded psychiatric hospitalization and medical discharge rates, and a marked reduction of the Army prisoner population.

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CURRENT TRENDS IN REGARD TO CRIMINAL RESPONSIBILITY [1]

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It is not fantastic to suggest that we are on the threshold of a socio-psychiatric development that may prove to be as profound in its effects as when Philippe Pinel took the chains off the patients in the *Bicêtre*. To what extent Pinel, Tuke, and Chiarugi were personally responsible in creating, in their respective countries, the drastic changes which took place in the treatment of the insane, and to what extent they were merely the apostles of the social revolutions which marked the close of the 18th century, is a complex question. In the course of history there have been few individuals and few social changes that were not the product of their age.

In discussing current trends in regard to criminal responsibility, I shall first center my attention on the epochal achievements of the Court of Appeals of the District of Columbia that has, under the leadership of Judge David Bazelon, embarked on a pioneering effort to deal realistically and radically with the relationship of mental disorder to criminal behavior. Many legal leaders have branded the Durham decision as revolutionary. The intensity of this reaction could not have resulted from the rule alone, for that had been in force in New Hampshire since 1870, but rather, from the broad implications contained in the Durham opinion, viewed as ominous portents of the future.

The Durham decision was, in truth, a product of the times in which we are living. Only the year before the decision, a Commission of the British Parliament, headed by Sir Ernest Gowers had reported,

> a preferable amendment of the law would be to abrogate the (M'Naghten) Rules and to leave the jury to determine whether at the time of the act the accused was suffering from a disease of the mind (or mental deficiency) to such a degree that he ought not be held responsible.

Law is a ponderous organism. For more than a century voices of protest had been continually raised from many quarters against the old rules of criminal responsibility, beginning with Dr. John Haslam, Dr. Isaac Ray, Dr. Henry Maudsley, and Sir James Fitzjames Stephens. Then there were the legal opinions of Judges Lemuel Shaw of Massachusetts, Somerville of Alabama, and of that remarkable triumvirate of New Hampshire jurists, Doe, Perley, and Ladd.

At the beginning of this century a dramatic and profound impetus to the understanding of human behavior came through the genius of Freud. His investigations, and those of his followers, showed that even the behavior of apparently healthy minded men is infrequently under full conscious control of the intelligence and that the actions of those who are less healthy are only to a very limited degree the product of deliberate planning and conscious control. Psychiatric contemporaries like Zilboorg, Alexander, and Karl Menninger have been creating a new understanding of anti-social behavior. The very foundations of the hegemony of the freedom of the will have been shaken. Legal leaders like Mr. Justice Frankfurter and Judge John Biggs and professors Sheldon Glueck, Dession, and Weihofen have shown an acute perception of the newer psychology and its, as yet largely unfulfilled, influence on criminal law.

During a short period of less than 20 years before the hearings in the case of Monte Durham, almost half of the states had passed sexual psychopath laws. The philosophical rationale of such legislation is recognition of the fact that many offenders cannot be properly segregated into two discrete groups, the insane and the sane, that there are individuals who have characteristics of both groups and should be dealt with accordingly.

I do not wish to detract from the importance of the Durham decision, nor from the unique brilliance of the opinion itself, which Mr. Justice Douglas characterized as "imaginative." Nor do I wish to minimize

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[1] Read at the 116th annual meeting of The American Psychiatric Association, Atlantic City, N. J., May 9-13, 1960.

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the moral courage of the jurists who framed it, even though the stage was in a measure already set for them. The granting of the Isaac Ray Award to Judge David Bazelon by our Association, is eloquent testimony of the attitude of American psychiatry.

One must surely admit that the Durham decision has had a profound and immediate effect. The fact that at least 6 state legislatures, those of New York, Massachusetts, Maryland, Pennsylvania, California, and Vermont have recently had bills introduced to redefine legal insanity shows the ferment that has been produced. Even though these bills failed passage in all but Vermont their introduction gives evidence of a nucleus of liberal dissenting opinion in each of these states.

The Durham Rule has been considered and rejected by 3 different Federal Courts of Appeal, by 3 Federal District Courts, the courts of 14 states and the Military Court of Appeals. This does not mean that each of these courts has considered the rule on its merits. In most instances it was rejected largely on technical grounds. The other Federal Courts, lacking the autonomy of the District of Columbia Court, felt they had to follow the M'Naghten Rules because of the Supreme Court decision of 1893. Most of the appellate state courts have held that changes in the rules of responsibility, because of their fundamental importance and the length of time that they have existed in their present form, should properly be the subject of legislation rather than of judicial decision.

It is the view of Judge Bazelon that the Durham Rule itself is of less importance than the more than 50 subsequent decisions, handed down by the Court of Appeals of the District of Columbia, to implement it properly. Any psychiatrist who has reviewed these opinions must be struck by their practical wisdom and by the breadth of psychiatric understanding that is inherent in them.

I have had the good fortune of reading in manuscript an unpublished paper on the Durham Rule and the decisions which followed it, by Mr. Abe Krash, a prominent member of the District of Columbia Bar. I have taken the liberty of using some of this material. Mr. Krash asserts that there are 3 fundamental principles implicit in the Durham decision :

1. That mental disorder may play a significant part in a substantial number of criminal cases.

2. That hospitalization with treatment may in a number of instances prove to be of greater benefit to society than imprisonment of the defendant.

3. That existing rules and procedures are obsolete and inadequate for segregating mentally disordered defendants and for dealing with the manifold problems that arise with the insanity plea.

Let us now examine some of the more important decisions that have emanated from this court in the past 5 years, as an outgrowth of the Durham decision.

The defendant's ability to stand trial was considered in the Lyles case. The Court states that,

> A paranoiac or a pyromaniac may well understand the charges against him and be able to assist in his defense. "To assist in his defense," of course does not refer to legal questions involved but to such phases of a defense as a defendant usually assists in, such as accounts of facts, names of witnesses, *etc.*

In Gunther v. U. S., the Court held that fitness to stand trial was not purely a medical decision and that a court was required to make its own findings, since this issue involves "a judgment based upon a knowledge of criminal trial proceedings." These are important declarations, which deal with a problem of growing importance. It is my impression that courts and prosecutors have tended more and more to rely on unfitness for trial as a device by which mentally diseased defendants can be dealt with humanely through hospitalization, without exposing them to the vagaries of jury decisions, under current court procedures and the prevailing rules of responsibility. Defendants are committed to a hospital until such time that they are sufficiently recovered to be tried. Frequently the case is stetted after a considerable period of time and the patient is released on recovery without trial. This legal circumvention is, I believe, one instance of what Mr. Justice Frankfurter meant when, in speaking of the M'Naghten Rules he said, "they are discredited by those

who have to administer them . . . they are honoured in the breach not in the observance."

In the Wear case the Court held that a request to have a defendant examined psychiatrically must be granted unless the motion were made in bad faith and the supporting grounds were frivolous. The examining psychiatrists are authorized to make whatever tests are necessary, even to hospitalizing the patient. In the Winn case the Court decided that such an examination should not be confined narrowly to fitness to stand trial but should be complete where it appeared that insanity might be made an issue.

In keeping with the opinion of the Supreme Court in Davis v. U. S. in 1895, the District of Columbia Court of Appeals has emphasized the heavy burden of the prosecution to prove sanity once it has become an issue through the introduction of data indicating mental abnormality. But, the Court stated that some evidence of insanity is needed, mere claim of loss of memory of the crime is not enough; however, it admitted that "some evidence" cannot be definitely defined.

In both the Stewart and the Wright cases, the Court stated that a psychiatrist is not forbidden from testifying as to the existence of an irresistible impulse or the capacity to distinguish between right and wrong, but that where such testimony exists the jury should be instructed that it is only relevant in determining whether the unlawful act was a product of mental disease or defect and is not controlling as to responsibility.

The Court has held that whether a sociopath is mentally diseased is a question of fact to be decided by the jury and that instructing a jury that a psychopath is not insane within the meaning of the law is a reversible error. I am informed that in practice most psychopaths are held to be responsible by District of Columbia juries, despite the fact that the staff policy of St. Elizabeths Hospital was altered in 1957 to include psychopathy among the mental diseases.

As a result of a 3-year study of the English laws governing insanity by a Royal Commission, a new set of acts has recently been passed by Parliament. Due, in no small part, to the urgent advocacy by this year's Isaac Ray award winner, Dr. Maxwell Jones, who directed for more than a decade the Belmont Hospital, an institution primarily for character disorders, psychopathy is considered a certifiable mental disease under the new Act. This is decried by the more conservative leaders in psychiatry as well as in law.

The social malignancy of his behavior, his disruptive influence in the hospital, and the difficulty that he presents in treatment, makes the psychopath generally a most unwelcome patient. Many psychiatrists feel that the already overburdened therapists should not have to take time away from more promising treatment prospects. In response to a recent paper, in which I welcomed the admission of cases of this type to intensive study and treatment units, one of this country's leading jurists wrote me that he considered it doubtful wisdom to expend large sums of public money on these individuals, when there were thousands of promising youths who could not go to college due to a lack of funds. As important as is the education of our youth, it seems to me that there could be no greater boon for the future of our society than a real break through in the treatment of psychopathy. The belief that the psychopath is evil and therefore is not deserving of our best treatment efforts is prevalent among us. This is reminiscent of the attitude that at one time was reputed to the gynecologist, Dr. Howard Kelly, one of the founders of the Johns Hopkins Medical School and a deeply religious man. He is said to have believed that those who acquired venereal disease illicitly did not deserve the same consideration in their treatment as those who had acquired the infection innocently.

The dire predictions by many Durham critics that the decision would turn our mental hospitals into prisons because of the overwhelming number of defendants who would be found to be insane under it, have not eventuated. Of the 10,000 defendants charged in the District of Columbia Criminal Courts since 1954, 90 have been found not guilty because of insanity. Of these, 26 have been conditionally released and 4 unconditionally. Of this number only 3 have been involved in serious anti-social offenses,

probably a much better showing than would be found in a similar number released from the penitentiary after the completion of their sentences. According to the *Washington Post-Times Herald* that collected these data, the term of hospital confinement was not substantially different from their probable period of imprisonment, had they not been found insane. The experimental study of juries by the University of Chicago indicates that cases presented to juries with judicial instructions according to Durham do not result in an increased number of insanity verdicts.

One of the chief targets for criticism of the Durham Rule is the inclusion of the product element. It is largely on this basis that Professor Wechsler, the very astute Recorder of the American Law Institute's Model Penal Code, has opposed the Durham formulation. The District of Columbia Court of Appeals has spelled out its own definition of "product."

> . . . we mean that the facts on the record are such that the trier of the facts is enabled to draw a reasonable inference that the accused would not have committed the act he did commit if he had not been diseased as he was. There must be a relationship between the disease and the act, and that relationship, whatever it may be in degree, must be, as we have already said, critical in its effect in respect to the act. By "critical" we mean decisive, determinative, causal; we mean to convey the idea inherent in the phrases, "but for," "effect of," "result of," "causative factor."

The relationships "are not intended to be precise as though they were in a chemical formula."

The Court has made some prudent observations in regard to psychiatric testimony. In Carter v. U. S. it declared,

> Unexplained medical labels—schizophrenia, paranoia, psychosis, neurosis, psychopathy—are not enough. Description and explanation of the origin, development, and manifestations of the alleged disease are the chief functions of the expert witness. The chief value of an expert's testimony in this field, as in all other fields, rests upon the material from which his opinion is fashioned and the reasoning by which he progresses from his material to his conclusion; in the explanation of the disease and its dynamics, that is how it occurred, developed, and affected the mental and emotional processes of the defendant; it does not lie in his mere expression of conclusion. The ultimate inferences *vel non* of relationship, of cause and effect, are for triers of the facts.

This formulation of psychiatry's contribution to a criminal trial presents a challenge which, I fear, few psychiatrists are equipped to meet. Dr. Andrew Watson, in his excellent paper read at the 1959 meeting of the APA, concluded that this ideal was not then being attained by the psychiatric experts in their testimony in the District of Columbia cases. This directive by the Court, creates the forensic climate for which we have been clamoring. We must school ourselves to perform adequately in it.

It has long been my contention that the written case reports sent to the Court by our clinic in Baltimore should contain the full body of data available—definitive opinion and conclusions with excerpts are not enough. The court is, I believe, entitled to have the opportunity of appraising the thoroughness of our study and the reasonableness of its conclusions from the data which we had available to us.

In a very recent case, Hopkins v. U. S., the Court reasserts that

> while a lay witness's observations of abnormal acts by an accused may be of great value as evidence, a statement that the witness never observed an abnormal act is of value if, but only if, the witness had prolonged and intimate contact with the accused.

Those of us who are engaged in clinical psychiatry can readily attest to the wisdom of this dictum. The observational powers of most individuals are amazingly inadequate. How often we are told by the co-workers and companions of out and out psychotics, "he always seemed perfectly normal to me."

It has been held in the Lyles case that the written diagnosis of a psychiatric disorder is inadequate in the absence of the physician who made it. The psychiatric diagnosis is considered to be an opinion and not a record of "an act, transaction, occurrence or event." The Court has, I believe, wisely held in this opinion that psychiatric diagnoses are less certain and reliable at

present than are autopsy, toxicological, and many medical diagnoses.

In Taylor v. U. S., the Court held that it was a reversible error if the instructions to the jury in the District of Columbia failed to inform them of the requirement of an indefinite period of psychiatric hospitalization on the finding of a verdict of not guilty because of insanity. Jurors should not be left with the misapprehension that the defendant will probably be institutionalized for only a short period and then released. This seems to me to be very important. One of the chief characteristics of a jury, and indeed one of its chief assets, is its practical nature and although the disposition of the offender is not supposed to be involved in the determination of its verdict, it has great influence unconsciously, if not consciously, in the type of verdict that is reached.

Mandatory commitment of defendants found not guilty because of insanity is the rule in only 9 states. In 12 states the court is empowered to commit the defendant if he is deemed dangerous to public peace and safety. In 8 states the court is given discretionary power to commit if the need exists, with no criteria nor means for establishing this need. A similar number of states provide that commitment to a hospital shall be made if the insanity is believed to persist at the time of trial. In 7 states present insanity becomes a separate jury issue to be resolved at the time of trial. In these states, if the defendant is found to have recovered by the time of trial, he is immediately and unconditionally released. This last plan seems to me especially unsound and tends to bring legal psychiatry into disrepute. One of the chief functions of the criminal law is to bring peace of mind to the citizenry. This necessitates further hospitalization and observation after an insanity verdict.

Stringent requirements for release from the psychiatric hospital, in cases in which there had been a "not guilty because of insanity" verdict, were spelled out in the Leach case. Improvement or remission of illness was not enough, there must be "freedom from such abnormal mental condition as would make the individual dangerous to himself or the community in the reasonably foreseeable future." This decision in itself did much to reduce the number of insanity pleas by sociopaths.

The Court has ruled in Starr v. U. S. that a patient cannot continue to be held merely because of a felonious character: his dangerousness must come from mental disease or defect.

This year the Court forthrightly set aside the judgment of guilty in the case of Isaac v. U. S. and directed that he be found not guilty because of insanity. Judge Prettyman, in the opinion in the Isaac case, outlines the procedural steps for the release of insane defendants: "First, the superintendent of the hospital certifies to 3 conclusions based upon his expert professional opinion; (a) Isaac is not suffering from a mental condition which (b) renders him dangerous to himself or to others in the reasonable future, and (c) he is entitled to an unconditional release; or the superintendent certifies that . . . he is entitled to be conditionally released under supervision." The court in which the person was tried, "in the exercise of a judicial judgment and in the absence of objections" of the prosecuting authority, "may accept the certificate of the superintendent and order the release of the person." But, the court may hold a hearing on its own initiative. If the prosecuting authority objects to the authority of the superintendent's certificate, a court hearing is mandatory. This opinion concludes with the statement, "The part of the court in the release procedure is not *pro forma* or merely technical; it is the performance of judicial acts, dependent solely upon the evidence and the judicial judgment of the court," of course, giving due weight to the opinion of the hospital superintendent.

To some it may seem paradoxical that this psychiatrically enlightened court has persistently refused to adopt the concept of partial responsibility. In 1946, a vigorous dissent was made by 3 justices of the Supreme Court in the Fisher case, in which they favored the concept of diminished responsibility. The Homicide Act, passed by Parliament in 1957, establishes the concept of diminished responsibility in England, patterning it after the Scottish doctrine, which has been in force for nearly a century.

There are, of course, no such entities as

sanity and insanity. The gradations from mental health to mental disease form a continuum. It is difficult enough to establish the point at which significant disease may be said to exist. When the task is further complicated by seeking to establish the limit at which a sufficient degree of abnormality develops to impair responsibility but insufficient to negate it, one has indeed a knotty problem and one that can only result in the fine spun reasoning that has marked expertising under M'Naghten. Doubtless, the desire to escape this morass has been in part responsible for the disinclination of the District of Columbia Court to recognize partial responsibility. Moreover, the finding of a mitigating but nonexculpatory degree of mental abnormality would not provide the defendant the opportunity of psychiatric hospital treatment, so that little good would be accomplished by it.

If a recent trend in Maryland can be considered typical, and I believe that it may be, there is an increasing tendency to temper M'Naghten justice in homicide cases by arriving at a reduced grade of responsibility through a finding that the accused, because of mental disorder, lacked the elements necessary to establish first degree murder.

The controlling case in Maryland is that of Faulcon v. State, heard in 1956. The opinion of the Court of Appeals stated :

> 1. The essential difference between murder and manslaughter, therefore, is the presence, or absence, of malice. In the absence of justification, excuse, or some circumstance of mitigation, malice may be inferred. . . . 2. To justify a conviction of murder in the first degree, the jury, or the court sitting without a jury, must find the actual intent, the fully formed purpose to kill, with enough time for deliberation and premeditation to convince that the purpose is not the immediate offspring of rashness and impetuous temper, and that the mind has become fully conscious of its own design. For a homicide to be "wilful," there must be a specific purpose and design to kill; "deliberate," a full and conscious knowledge of the purpose to kill; and "premeditated," the design to kill must have preceded the killing by an appreciable length of time, *i.e.*, time enough to deliberate. Deliberation and premeditation need not have been conceived or have existed for any particular length of time before the killing.

That this is a good law, I have no doubt. But that the psychiatric expert has any special skills by which to determine with accuracy these important elements : malice, wilfulness, deliberation and premeditation, I have very grave doubt. To be sure, the average juror lacks this discernment also. Legally these are questions of fact and since the law requires that they be answered, the jury must do the best that it can with them, but I believe that they should not be asked of the psychiatric expert. All that should be required of him is to describe in detail the mental condition of the defendant at the time of his examination and, as far as he is able, what he can infer was his psychiatric condition at the time of the crime. To have the expert answer inquiries about malice, wilfulness, deliberation, premeditation, *etc.*, is seriously misleading, because the jury will naturally conclude that he has some very special competence in this area and will be unduly guided by his answers.

It is much like the questions in regard to knowledge of right and wrong and the nature and quality of the act, asked under M'Naghten. It seems to me that the claim that under Durham the psychiatrist takes command of the trial is entirely untrue. He is testifying as to facts in which he has special competence. He is in a position to state whether his conclusions as to the psychiatric condition of the accused at the time of the offense are essentially an hypothesis, an opinion or a conviction, so that even his degree of certainty can be evaluated. The jury can also appraise his thoroughness and his competence. Under the old rules of responsibility and the old procedural methods of presenting testimony, with the "all or none" type of answer which is commonly given in response to categorical inquiries about fictional psychological entities, which the law has created, and with which the expert has little familiarity and no special competence, there is given to the expert's pronouncements a specious air of wisdom and certainty which is misleading and elevates the psychiatric expert to a commanding status in the eyes of the juror that is not deserved.

I have always been a proponent of the use of court appointed neutral experts in trials. I have maintained that although our

adversary method of trial may be a desirable means for presenting ordinary factual data, it is not the optimum method for presenting opinion evidence on scientific subjects. But perhaps, until we follow the course set by the District of Columbia Court and change the focus and the range of testimony generally required of the psychiatric expert, the conventional adversary method should be retained, so that the opinions of one set of experts can be used to nullify the opinions of those of the opposing set, leaving the jury free to exercise its independent common sense.

The test of responsibility proposed by the American Law Institute in its Model Penal Code has gained acceptance in many legal quarters. It reads :

> 1. A person is not responsible for criminal conduct if at the time of such conduct as a result of mental disease or defect he lacks substantial capacity either to appreciate the criminality of his conduct or to conform his conduct to the requirements of law. 2. The terms "mental disease or defect" do not include an abnormality manifested only by repeated criminal or otherwise anti-social conduct.

This test, in slightly amended form, has become the law of Vermont. It has received, or is receiving, serious consideration by legislative committees in California, New York, Illinois, Wisconsin, and Maryland. In the 85th Congress a bill was introduced to make it the law of the District of Columbia.

The 3 psychiatrists who are members of the Advisory Committee to the drafters of the American Law Institute's Model Penal Code have vigorously protested against this definition. Even though they see it as an improvement over M'Naghten, in that it is not framed in the old familiar but vague ethical terms of M'Naghten and it avoids its rigidity and gives recognition to that vital aspect of behavior, the capacity to control conduct, they do not find it acceptable.

In a recent protest, Drs. Lawrence Freedman, Overholser, and I stated that we believed that no formula for determining criminal irresponsibility by reason of mental disorder can be acceptable which demands a degree of precision of definition which exceeds present knowledge and a fragmentation of human function which denies its essential unity. "In our opinions the definition's concept of 'capacity to control' suffers from 2 deficiencies : it attempts to compartmentalize human functions out of the context of the functioning human organism and it makes a technical demand on the psychiatrist which he cannot fulfill." We further objected "to the attempted definition of sociopathic or psychopathic personality and the legal elimination of a psychiatric diagnostic condition when it is 'manifested only by repeated criminal conduct or otherwise anti-social conduct,'" which according to the commentary in the draft of the Penal Code was the purpose of the second part of its definition. We failed to see "how the law can determine that a compulsive repetition of a form of behavior is non-pathological." We expressed great doubt as to the wisdom and necessity of attempting to legislate on matters of psychiatric terminology and concept.

In this protest to the Advisory Committee, its psychiatric members stated that they favored the Durham formulations since it permitted all of the relevant psychiatric data to be introduced and to be integrated by juries in their decisions as to fact. We admitted that the concept of "mental disease" would change with advancing research and knowledge, but we believed that the Durham Rule would permit psychiatrists to testify in the light of the then current knowledge. It was our contention that the word "product" offered no insurmountable barriers to logic, to science, nor to common sense.

Perhaps no one has given more prudent advice in regard to adjusting to the changes in the attitude of law toward mental disorder than the great Oxford legal scholar, Sir Paul Vinogradoff, when he wrote nearly a half century ago :

> . . . It is immensely important that popular notion should be brought up to a level with broad results of scientific study. By imperceptible degrees scientific discoveries are making their way into popular consciousness, and it is the duty of those who are in closer touch with progressive thought—lawyers as well as scientists—to promote by all available means the spread of knowledge on these subjects.
>
> People are often shy of approaching the psychological study of legal phenomena, especially

of crime, because they are afraid of undermining the practical premises of social security by investigating closely the psychological motives of criminals. This apprehension seems based on a pure misunderstanding : the principle of social self-preservation requires adaptation to altered scientific views rather than adherence to antiquated theories and the grappling of juries in every single case with the perplexing problem of responsibility.

If we look with complete candor into the future we must agree with what Lady Barbara Wootton, one of England's leading social scientists, said in a recent British Broadcast entitled, "Neither Child nor Lunatic." The socio-psychiatric evolution, or revolution if you will, through which we are living, points in the direction which she has indicated. Her broadcast concluded with these words :

> Personally, I do not see how this state of affairs can continue indefinitely. Nor, indeed, do I see any reason why it should. The only solution, as I see it, is to give up trying to draw the line between the responsible and the irresponsible, and to recognize that once we have departed from the comparative security of the M'Naghten formula there is no logical resting place short of abandoning the questions of responsibility altogether. In fact, that is just what has already happened under the Mental Health Act. In the case of the psychopath, the question whether he can, or cannot, help his outrageous behaviour is simply not asked : the only issue is his need for, or probable response, to treatment. So perhaps in the end we shall come to that in the courts also. In that case everything except treatment—guilt, responsibility, and all the rest of it—would become irrelevant. At least such a system would be both humane and effective, which is more than can be said for what we have now.

Perhaps this sounds like the millennium. But people had such dreams, long before psychiatry, as such, came into being. It was Epictectus, the Stoic, who said during the 1st century, that the wise man should regard even the greatest criminal as one who was unfortunate and confused and should not be angered with him.

To be sure, this ideal is still a long way off, and doubtless it is better so, until the behavioral scientists learn a great deal more about effectively treating and preventing crime.

COOPERATION FOR RESEARCH IN PSYCHIATRY AND LAW[1]

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The study of the selection and training of physicians has made rapid strides forward in recent years. The psychiatric profession in all its branches is a beneficiary of this redoubling of concern for the recruitment and formation of the profession. It cannot be said that research upon the legal profession is as far advanced(1). We shall forego the temptation to deal in detail with the sophistication of the lawyer in psychiatric conceptions and methods, and of the psychiatrist in legal concepts and techniques (2). Perhaps it is enough to reiterate the importance of the problems involved, and to select for emphasis 4 topics of high importance for the future of creative working relations between psychiatrists and lawyers. We focus upon 1. The problems of communication, 2. Of professional values, 3. Of the subjective stresses of collaboration, and 4. Of competency on the part of collaborators.

PROBLEMS OF COMMUNICATION

Not enough attention has been given to the study of one of the principal tools at the command of both professions, namely, language. More investigation is needed to bring out the subtle influence of categories upon perceptions of relevance. Modern instruments of communication (and information) research are available to cast into high relief the categories and problem solving processes appropriate to legislator, advocate, judge and jury; and the categories and problem solving processes appropriate to the psychiatric physician. The community's official decision makers are authorized to decide in the name of the body politic what preferred forms of human relationships are to be protected by his decisions. This is the basic job of the decision makers who formulate constitutional charters which provide the framework of goal and method within which legislators, executives, administrators, and judges work. The language of the legal formula refers to the institutional arrangements that are to be protected by authority; in a word, to the public order (3). The decision makers are authorized to use the terms and prescriptions of the legal formula, as embellished by proper authorities, to guide their problem solving activities when confronted by a broad problem of legislation or a question involving the fate of one accused person.

The physician is not able to make his best contribution if he is bound by this language. The Durham decision in the District of Columbia has been a landmark in clarifying this point; and in making it evident that the appropriate language of the physician is that of his own profession, plus illuminating synonyms in ordinary speech. Communications are most usefully studied in situations in which we can identify who with what intentions and capabilities is saying what in what channel to which audience with what effects. It is entirely feasible to observe and record the professional situations in which lawyers and psychiatrists operate, and to bring out significant likenesses and differences. For instance, the psychiatrist interviews, among others, patients, relatives of patients, physicians and other staff members. The lawyer also interviews, among others, clients, opposing and cooperating counsel, and witnesses. The psychiatrist testifies as an expert in the decision-making processes of the community. The lawyer's advocacy role in official proceedings is to examine witnesses and argue the claims of the parties whom he represents. These reminders are sufficient to suggest that much can be done in providing a common body of objective material about

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language-in-action ; and to suggest the possibility of principles of effective communication(4, 5).

PROBLEMS OF PROFESSIONAL VALUES

It is apparent that professional education does not now clarify the professional standards of lawyers and psychiatrists where their activities overlap. For instance, privilege and confidentiality of communications and records, as well as evaluation of capacity and competence to perform certain legal acts, involves the psychiatrists in making legally pertinent judgments. Experience shows that psychiatrists and jurists often misunderstand the basic assumptions of the other in protecting the rights of individuals and of groups. The psychiatrist thinks primarily in terms of his responsibility for the health of the patient, and interprets his license from the community as a recognition of his competence to defend the medical rights of a patient. The lawyer is accustomed to emphasize the fundamental importance of providing procedural safeguards by means of which all rights can be given effective protection by the community. Accustomed to view himself as the benign, therapeutic protector of his patient, the psychiatrist often cannot understand the lawyer's concern with the "rights" of the patient while under his care. The psychiatrist sees impartial, court-appointed testimony concerning mental states, commitment to mental hospitals and psychiatrically ill people, and medically determined dates of discharge as essential medical prerogatives for the optimal psychiatric welfare of emotionally disturbed persons whether or not they have violated legal codes. He finds it difficult to comprehend the lawyer's assumption that adversary experts, court procedures for admission to hospitals, and legally imposed limits for treatment within them constitute essential protection of the rights of the patient. This illustration serves to point up the necessity for clearer conceptualization by each of the professional "body-image" and social posture. It has become apparent that recruitment, self-selection and acceptance for training by the prospective professional schools may favor certain motivations and personality types within each profession. If we are to remove these misunderstandings that so often arise, we need joint research teams to investigate specific cases and to subject them to mutual discussion and evaluation. A clear delineation of their respective roles, values and semantics is probably best carried out by disinterested social scientists with the active cooperation, as subjects, of adequate samplings of lawyers and psychiatrists representative of differing schools of thought, status level, backgrounds and age groups. In the course of these studies workable arrangements may be suggested and explored that provide guidance for the psychiatric hospital, the private physician and the public officials involved in typical dilemmas.

SUBJECTIVE PROBLEMS IN COLLABORATION

Perhaps equal in importance to the considerations we have just made are the personal motives and social qualities of the lawyers and psychiatrists who work together on research tasks. At present little attention is given these matters in the course of professional preparation. It may be diplomatic and strategic to deny the irrational strivings, the rivalries, anxieties and conflicts which inhere to a project bringing together men of varying professional backgrounds, and personal values and characteristics. But it is not realistic or constructive. While it would be sanguine to assume that the mere delineation of anticipated pitfalls at a personal level will eliminate them, certainly it is essential that they be delineated and anticipated if precious time, manpower, and financial support be not dissipated. Worse still, the original energy may be supplanted by frustration and disillusionment, not as a result of difficulties inherent in the social challenge, but as an artifact springing from the human dislocations within the collaborative team.

Professionally the lawyer and the psychiatrist have much in common as shared experience which could facilitate the preliminary stages of research collaboration. For example, both professions have perforce learned to conduct their observations on human behavior under conditions permitting maximum spontaneity of response of their subjects. Neither is hampered by the illusion that the laboratory is the only place to study the activities of man. Against

this is the much reiterated therapeutic ambition of the psychiatrist leading him to identify with his single patient as against the threatening and oppressive community, and the social concern of the lawyer, leading him to think in terms of the maximum good to the maximum numbers while trying to do least harm to its individual members.

Lawyers and psychiatrists belong to prestigeful professions, which offer them successful, status-occupying positions in the community. This maximizes their tendency to maintain identity and minimizes the likelihood of their yielding autonomy and sovereignty. When the opportunities for "success" within one's own profession, using one's own language, sharing one's values with fellows are great, only a very particular subgroup selects itself out for collaborative enterprises with sceptical and "alien" brother disciplines. The ambivalences inherent in this situation are sharpened by the scepticism encountered by these inter-disciplinary pioneers on both sides—members of their own professional group and members of the collaborating group.

PROBLEMS IN COMPETENCY

Intellectual preparation for collaborative work doubtless calls for realistic modesty about competence. It would be over-optimistic to assume that it is practicable to bring together an effective group, each member of which has sufficient information to encompass and incorporate even the basic principles of the collaborating disciplines. Another requirement for such a research team, therefore, is that the members are capable and willing to devote the time and manifest the humility necessary to educate one another. As a corollary to this, the participants must be willing to eschew the defensive maneuver of claiming for themselves and their own disciplines "expertness" in all fields which fall within their professional prerogatives. For, even within any given discipline, it is unlikely that a single man encompasses the knowledge available to his entire specialty. For example, psychiatrists while medically and biologically trained, are hardly in a position to speak for medicine and biology except vis-à-vis their non-medical collaborators. Similarly, lawyers specializing in one or another subcategory of this massive field ought not to feel forced to pretend to a range of expertness beyond it.

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THE COMMUNICATION OF SUICIDAL INTENT PRIOR TO PSYCHIATRIC HOSPITALIZATION: A STUDY OF 87 PATIENTS [1, 2]

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During the course of our studies of attempted and successful suicide, it became evident that persons who attempt or commit suicide frequently communicate their intentions prior to the act(1, 2). The present study was undertaken to assess the content, frequency, duration, repetitiveness, and relation to clinical diagnosis of suicidal communications in patients who were ill enough to be admitted to a psychiatric hospital, but who were selected without regard to suicidal communications or acts. This study was limited to *communications* (verbal or behavioral, for example, a suicidal attempt) concerning suicide rather than to thoughts about suicide, for two reasons: (a) It was believed that more reliable and valid information could be obtained about actual communications than about thoughts. (b) It was desirable to have the present data comparable to the data from a previous study of completed suicide. Information in the completed suicide study was available only from surviving informants, who could give evidence of communications of intent, but not of uncommunicated suicidal thoughts. In this paper we will report on the suicidal communications of patients at the time of admission to a psychiatric hospital.

METHOD OF STUDY

Selection of Patients.—The primary object was the selection of an unbiased sample of admissions to a psychiatric hospital, within the limits imposed by hospital admission policy. Renard Hospital, where this study was done, is the psychiatric hospital for Barnes Hospital and Washington University School of Medicine and is designed for short-term psychiatric care, admitting chiefly private patients or paying staff care patients. The present group of 87 patients included 71 private and 16 staff care patients. The mean duration of hospitalization was 23 days.

Limitations of time and personnel made it impossible to include every patient admitted during the two months' study. The selection criteria were: every patient admitted between 8 a.m. and 5 p.m., Monday through Friday, was to be included if accompanied by an informant and if his admission did not occur while interviews with a preceding patient and his informant were in progress.

During the study, 242 patients were admitted; 155 were excluded (143 by our selection criteria and 12 unintentionally), leaving 87 patients studied (Table 1), or 88% of the 99 patients who fit the selection criteria.

A comparison of the hospital records of patients included with those of patients excluded inadvertently or because they did not meet the selection criteria showed that the two groups did not differ significantly with regard to proportion of the sexes, age, history of a previous suicide attempt, proportion who received EST during their hospitalization, duration of hospitalization, or discharge diagnoses (Table 2). The sample of 87 patients represents, therefore, a relatively unbiased selection of the total admissions to Renard Hospital.

Sources of Information.—There were 5 sources for each patient: (a) The admission history taken by the admitting resident, in the presence of the investigator. (b) An interview with the informant, almost always a relative, who accompanied the patient. (c) An interview and mental status examination of the patient. (d) A questionnaire to each patient's psychiatrist concerning suicidal communications, and inquiring whether concern about suicide was a rea-

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[2] We wish to thank the entire attending staff of Renard Hospital without whose generous cooperation this study would not have been possible. We also wish to acknowledge our debt to Mrs. Anne Stacy for doing the statistical calculations.

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son for his admitting the patient.[4] (e) A review of the hospital records after discharge.

[4] The questionnaire included the following questions: (a) Had the patient communicated suicidal intentions to you? (b) Had the patient, to your knowledge, communicated suicidal intentions to anyone else? (c) Had the patient made a suicide attempt? (d) Was the possibility of suicide a major reason, a minor reason, or not a reason at all for your decision to admit the patient to the hospital?

A systematic interview with the informant, averaging over one hour, was done immediately upon admission of the patient, and preceded the interview with the patient. It covered identifying items; chief complaint; symptoms and natural history of the present illness; school, arrest, job and marital history; alcoholic and drug intake history; a history of personal life stresses; and inquiries as to whether the

TABLE 1

SELECTION OF PATIENTS

Total admissions			242
Patients excluded			155
By selection criteria		143	
Admitted weekdays 5 p.m. to 8 a.m.	55		
Admitted weekends	46		
Patient unaccompanied	23		
Simultaneous admissions	19		
Unintentionally excluded		12	
Investigator not notified	6		
Investigator unavailable	2		
Informant refused to wait	1		
Unknown	3		
Patients included			87

TABLE 2

REPRESENTATIVENESS OF THE PATIENTS STUDIED

	Patients Studied $N=87$	*Patients Not Studied* * $N=109$
Sex		
Men, %	34	38
Women, %	66	62
Age (Years)		
Mean ± standard deviation	45 ± 16	47 ± 17
History of suicide attempt, %	11	10
Received electroshock therapy during hospitalization, %	39	41
Duration of hospitalization ± standard deviation	23 ± 19	28 ± 30
Discharge diagnoses †, %		
Depressive reactions	51	46
Manic reactions	5	6
Schizophrenia	8	13
Neurotic reactions	5	6
Alcoholism	5	3
Acute and chronic brain syndromes	8	12
Miscellaneous other diagnoses	6	4
Multiple psychiatric diagnoses	7	6
Undiagnosed	6	4

* Includes 55 patients admitted on weekdays from 5 p.m. to 8 a.m., 23 unaccompanied patients, 19 simultaneous admissions, and the 12 patients unintentionally excluded, but does not include the 46 patients admitted on weekends. Since the 109 turned out to be so similar to the studied patients the addition of the inadvertantly omitted 46 weekend admissions probably would not have changed the comparisons appreciably.

† These are diagnoses made by the patients' own physicians at the time of discharge.

patient had ever expressed any of the 16 types of suicidal communications (see Table 4). The interviewer systematically asked every question of every subject but changed wording and explored further as the occasion demanded.

The interview with the patient was identical in content with that of the relative, with the wording changed to fit the patient. In addition, direct observations concerning the mental status were made at the time of the interview, done within 24 hours of admission, and which averaged somewhat over one hour.

Suicidal Communications.—Subjects were asked about suicidal communication *at any time* in the patients' lives, not only in the recent past. Responses were scored as definite suicidal communications if the patient and/or the informant believed that the patient seriously meant the communication at the time he made it and that the communication was a reflection of a disturbed and unusual mental state. If *either* the patient or informant gave evidence of a definite communication, even if the other denied or minimized it, the communication was still scored as definite. *Not* included were the patient's prudent attempts to arrange his affairs (for example, making a will or buying a family burial plot) in the absence of morbid preoccupation with death.

Diagnostic Criteria.—The patients studied were divided into 3 major diagnostic groups: manic-depressive disease, chronic alcoholism, and a miscellaneous group (Table 3). The diagnostic criteria used for diagnosing manic-depressive disease,[5] schizophrenia, conversion reaction, anxiety reaction, acute and chronic brain syndromes, sociopathic personality, chronic alcoholism, obsessive-compulsive reaction, and mental deficiency were those reported in previous papers(1, 3). Each of these diagnoses was made on the basis of specific symptoms (somatic and psychological) and behavioral disturbances, excluding suicidal communications. The application of rigorous diagnostic criteria left a relatively large undiagnosed group of 14 patients, 16% of the total sample. When diagnoses made by the investigators using the criteria of the study were compared with the diagnoses on discharge, satisfactory agreement was found. For the 48 diagnosed manic-depressive, 44 had a discharge diagnosis included in our definition of this psychiatric entity: manic-depressive disease, psychotic depressive reaction, involutional depression, depressive reaction, or reactive depressive (7 cases of the latter). Of the 9 cases diagnosed alcoholism, 6 had the same discharge diagnosis. The other 3 cases had discharge diagnoses of psychotic depressive reaction or depressive reaction, although in each instance excessive alcoholic intake was noted in the chart. For patients for whom some other specific diagnosis was made, an agreement occurred in 18 of the

[5] This term is used to include the diagnoses of manic-depressive disease, manic phase; manic-depressive disease, depressed phase; psychotic depressive reaction; and involutional psychotic reaction, depressive type. Reasons for including all 3 kinds of depressions under this one term have been discussed previously(3). Perhaps a more usual name for this group of terms is affective reactions.

TABLE 3

CHARACTERISTICS OF THE GROUP STUDIED

Diagnostic Group	*Number and Sex*			*Mean Ages±Std. Dev.*		
	Men	*Women*	*Total*	*Men*	*Women*	*Total*
Manic-depressive disease*	19	29	48	51±15	47±16	48±16
Miscellaneous group †	5	25	30	22± 6	43±17	39±17
Chronic alcoholism	6	3	9	44±10	37±14	42±12
Entire group	30	57	87	45±17	44±16	45±16

* Includes 41 patients in the depressed phase and 7 patients in the manic phase. The high proportion of manic-depressive patients has also been found in studies reported from other short-term, private psychiatric hospitals(4, 5), where a minimum of one-quarter of the patients have had this diagnosis.

† Chronic brain syndrome—5; schizophrenia—4; conversion reaction—4; sociopathy, obsessive-compulsive reaction, mental deficiency—1 each; undiagnosed—14.

20 cases. In the remaining 10 patients, the investigators were not able to make a specific diagnosis, whereas the discharge diagnoses included schizophrenia, acute brain syndrome, chronic brain syndrome, conversion reaction, passive-aggressive personality, and 5 depressive reactions of various kinds.

Persons Who Had Committed Suicide.—Comparisons will be made between the 48 patients of the present study with manic-depressive disease and 60 patients with the same illness who had committed suicide. These 60 suicides were all of the manic-depressives found in a group of 134 consecutive completed suicides previously studied. Selection, diagnostic criteria, and suicidal communications for the 60 patients have been described previously(2, 3).

Statistical Methods.—The chi square test with appropriate small number corrections was used for statistical comparisons of enumerated data between groups(8). For measurement data, the standard error of the means and standard error of the differences between means were calculated and the significance of the differences tested by means of the t-test(8). A significance level of 0.05 or better was accepted as being statistically significant.

RESULTS AND DISCUSSION

We shall first describe the characteristics of suicidal communications in the entire group, and then compare and contrast the various diagnostic groups. Next, the correspondence between information given by the informant and by the patient will be analyzed. In the final section a comparison will be made between the present manic-depressives and the previously studied group of completed suicides with the same illness.

THE ENTIRE SAMPLE

Kinds of Communication of Suicidal Ideas.—There were 16 different ways of communicating suicidal intent in the entire group (Table 4). Four categories of communication occurred in more than one-third of the patients. These categories (No. 1-4, Table 4, last column) included state-

TABLE 4

KINDS OF COMMUNICATION OF SUICIDAL IDEAS

Categories of communication	*Patients* † %	*Informants* † %	*Either* † %
1. Desire to die	26	26	37
2. Better off dead	29	32	40
3. Statement that his family would be better off if he were dead	28	25	37
4. Statement of intent to commit suicide	16*	32*	33
5. Suicide attempts	11	11	14
6. References to methods of committing suicide	11	22	23
7. Dire predictions‡	6	8	10
8. References to dying before or with spouse	7	15	16
9. Putting affairs in order, or planning to	6	5	6
10. Can't take it any longer ; no other way out	17	21	22
11. References to burial or grave	6	7	7
12. Statement of not being afraid, or being afraid, to die	13	17	18
13. Talk about suicides of others	2	3	3
14. Insistent spouse not buy new things for him	2	1	2
15. Taunts and threats concerning suicide	1	7	7
16. Miscellaneous	0	1	1

* $P<0.05$

† In this and subsequent tables, the column heads "Patients," "Informants," and "Either" signify suicidal communications according to information received from the patient or the informant or from either, respectively.

‡ *E.g.*, "I won't be here—get your parents to help you raise the kids" ; "I'm going to die ; take care of the babies" ; "You'd better get me into the hospital before anything happens" ; "It feels like I don't have much longer to live" ; "Some day you'll find me dead" ; "I won't be here tomorrow" ; "This is the last time I'll see you."

ments by the patient that he wanted to die, that he would be better off if he were dead, that his family would be better off if he were dead, and that he intended to commit suicide.

Sixty-eight percent of the patients had expressed suicidal ideas in one way or another and 53% had expressed such ideas in one of the 5 more common ways (Table 5).[6] The communication of suicidal intent in patients admitted to a psychiatric hospital for short-term care is, therefore, high. Most of these statements show a preoccupation with suicide and death. For only 7% of the patients were the suicidal communications thought to be a taunt or threat. Apparently in patients ill enough to be admitted to a psychiatric hospital, suicidal communications are not considered a way of manipulating the environment for ulterior reasons, but as expressions of feelings of hopelessness and of depressed feelings.

Men and women did not differ significantly with regard to the prevalence of suicidal communications (Tables 4 and 5).

Frequency, Repetitiveness, and Duration of the Suicidal Communications.—Suicidal communications tended to be repetitive, varied, and of recent inception. Sixty-eight percent of the patients who communicated suicidal ideas had made such communications repeatedly. The mean number of the 5 common kinds of communications was 2.49. For 66% of those who had communicated suicidal ideas, no such communications had occurred prior to the year preceding admission, and for 44% not prior to the 3 months preceding admission.

RELATIONSHIP OF COMMUNICATION OF SUICIDAL IDEAS TO CLINICAL DIAGNOSIS

The number of patients, 9, in the chronic alcoholic group is too small for statistical treatment. The number within any one specific diagnostic group in the miscellaneous group is also too small for statistical treatment, but the total miscellaneous group affords a relatively homogenous group with regard to suicidal communications, which

[6] The reason for considering categories of communication 1 to 5 separately from the remaining categories, 6 to 16, as in Tables 5, 8, 9, and 10, is related to the criteria for definite suicidal communications described under "Method of Study." In categories 1 to 5, 98% of all the communications reported were considered definite. In contrast, in categories 6-16, only 57% of the communications reported were considered definite. It is suggested, therefore, that in a routine clinical interview of the first 5 categories of communication are more relevant to the question of suicidal preoccupation than are the remaining 11 categories. On the other hand, since definite communications do occur in the other 11 categories, it is important not to ignore them entirely. Among the 11 categories, it is our impression that references to methods of committing suicide (category 6) and to being unable to "take it" any longer (category 10) are particularly helpful in assessing suicidal preoccupation.

TABLE 5

PROPORTION OF PATIENTS EXPRESSING AT LEAST ONE SUICIDAL IDEA

Group	*Categories 1-5*			*Categories 1-16*		
	Patient %	*Informant* %	*Either* %	*Patient* %	*Informant* %	*Either* %
Total Sample	43	47	53	54	59	68
By Sex						
Men	56	60	60	60	70	73
Women	39	40	49	51	53	65
By Diagnostic Group						
Manic-depressive	54**	56**	65**	67**	69**	81**
Miscellaneous	13**	23**	27**	27**	33**	43**
Chronic Alcoholic	78	78	78	78	78	78

** $P<0.01$ when manic-depressives compared with miscellaneous group for the data in the corresponding column.

will be compared with the manic-depressive group.

Kinds of Communications.—Suicidal communications were much more often reported for patients with manic-depressive disease than for those in the miscellaneous group (Table 5).[7] Eighty-one percent of the manic-depressives made suicidal communications, as compared with only 43% of the miscellaneous group. When the comparison is limited to communications in categories 1 to 5 only, 65% of the manic-depressives, compared to only 27% of the miscellaneous group, made suicidal communications. Patients with manic-depressive disease who are ill enough to be hospitalized have a very high prevalence of suicidal communications.

When comparisons are made for the particular ways of communicating suicidal intent, the manic-depressives show a significantly higher proportion in 4 communication categories—statements by the patient that he would be better off dead, that his family would be better off if he were dead, that he intends to commit suicide, and that he cannot take it any longer (Table 6, last column). Additionally, a higher proportion of the manic-depressives use 14 of the 16 categories of communication, while a higher proportion of the miscellaneous group occurs in only 2 categories.

The high frequency of suicidal communications in patients with manic-depressive disease raises the question as to whether the examiner did in fact use suicidal communications as a criterion for diagnosing manic-depressive disease, despite the decision that

[7] Because of the few patients within any one diagnostic category, *e.g.*, conversion reaction, schizophrenia, *etc.*, in the miscellaneous group, it is not possible to conclude from this study that none of these diagnostic categories has a high prevalence of suicidal communications.

TABLE 6

KINDS OF COMMUNICATION OF SUICIDAL IDEAS: MANIC-DEPRESSIVE DISEASE VERSUS MISCELLANEOUS GROUP

Categories of Communication	*Patients*		*Informants*		*Either*	
	M–D Dis. %	*Misc. Grp.* %	*M–D Dis.* %	*Misc. Grp.* %	*M–D Dis.* %	*Misc. Grp.* %
1. Desire to die	29	13	25	20	40	28
2. Better off dead	40**	7**	37*	17*	52**	17**
3. Statement that his family would be better off if he were dead	40**	3**	31*	10*	46**	10**
4. Statement of intent to commit suicide	23*	0*	35*	10*	40**	10**
5. Suicide attempts	21*	0*	15	3	21	3
6. References to methods of committing suicide	17	0	21	10	27	10
7. Dire predictions	8	3	10	0	15	3
8. References to dying before or with spouse	12	0	21	7	23	7
9. Putting affairs in order, or planning to	8	3	8	0	10	3
10. Can't take it any longer; no other way out	21	13	29*	7*	33*	15*
11. References to burial or grave	8	3	12	0	8	3
12. Statement of not being afraid, or being afraid to die	17	7	19	13	21	15
13. Talk about suicides of others	4	0	4	0	6	0
14. Insistent spouse not buy new things for him	4	0	2	0	4	0
15. Taunts and threats concerning suicide	0	0	4	13	4	13
16. Miscellaneous	0	0	0	3	0	4

* $P<0.05$ when manic-depressives compared with miscellaneous groups for the data within each column.
** $P<0.01$ for same comparisons as in single starred footnote.

the diagnosis should be made on the basis of other criteria only. However, the independence of the diagnosis from considerations of suicidal communication can be demonstrated by the facts that: 1. Other classic symptoms of depression [8] were uniformly present. Of the 41 patients in the depressed phase (Table 3), all except 2 had 8 or more of the 15 leading symptoms of depression. 2. The course of the illness showed the distinctive pattern of manic-depressive disease: episodic and late onset. In 51% of the patients diagnosed manic-depressive disease there was a history of a previous attack with an interval free of symptoms prior to the current episode. In 53% of cases the age of onset (date of the first attack) was over 40. In the miscellaneous group (excluding the 5 with chronic brain syndrome) (Table 3), in contrast, only 20% became ill after age 40 and only 8% had had a previous episode of illness with an apparently symptom-free interval following it. Nor did the previous episode described resemble an episode of manic-depressive disease.

[8] Fifteen symptoms were chosen as particularly diagnostic of the depressed phase: anorexia, weight loss, diminished libido including impotence or frigidity, difficulty falling asleep, sleeping fitfully, early morning waking, complaint of getting no sleep, low mood, fear of losing mind, thoughts of never becoming well again, hopeless future outlook, complaint of poor concentration, complaint of poor memory, complaint of not thinking clearly, and complaint that speed of thinking was diminished. Other symptoms common in manic-depressive disease (6, 7), feelings of guilt and worthlessness, and delusions of poverty and sin, were used as supporting evidence.

Frequency, Repetitiveness, and Duration of the Suicidal Communications.—The manic-depressive patients who communicated their suicidal intentions showed a tendency to communicate in a greater number of different ways than did the miscellaneous group, 4.0 *vs.* 2.0. This tendency reached statistical significance for the patients' reports but not for the informants' reports. There were no significant differences between diagnostic groups with regard to repetitiveness of suicidal communications or with regard to duration of communication. As might have been expected, because of the episodic nature of manic-depressive disease, there was a tendency for the manic-depressives to have a shorter duration of suicidal communications. Of the patients who communicated, only 22% of the manic-depressives, compared with 57% of the miscellaneous group, had first communicated their suicidal intentions more than one year prior to admission.

Influence of Age and Sex.—Since the manic-depressive group, when compared with the miscellaneous group, was older and contained more men (Table 3), the question arose as to whether sex and age rather than diagnosis may have explained the greater proportion giving suicidal communications in the manic-depressive group. That sex or age was not the determining factor was shown by the findings that in the entire group and within each diagnostic group, no significant differences in communication occurred between the sexes or between young and old. There was a slight but insignificant tendency for men to com-

TABLE 7

ANSWERS TO PSYCHIATRISTS' QUESTIONNAIRES

Diagnostic Group	*Told psychiatrist of suicidal ideas*	*Told someone else of suicidal ideas*	*Attempted suicide*	*Any suicidal communication*	*Possibility of suicide was a factor in hospital admission*
	%	%	%	%	%
Manic-depressive disease	25**	25**	13	40**	67**
Miscellaneous group	0**	0**	0	0**	17**
Alcoholism	0	13	13	25	50
Total group	14	15	8	25	48

** $P<0.01$ when manic-depressives are compared with the miscellaneous group within each column.

municate suicidal ideas more than women, but this was balanced by a slight tendency for the younger patients to communicate more than the older ones.

Patients with Chronic Alcoholism.—Although there were too few patients in the alcoholic group for statistical treatment, the alcoholics appear to be more like the manic-depressives than the miscellaneous group, in that a high proportion communicate suicidal ideas (Table 5). To demonstrate this similarity satisfactorily, a larger number of alcoholics would have to be studied.

Questionnaire to Patients' Psychiatrists.—The results of this questionnaire are consistent with the results already reported (Table 7). Physicians reported a relatively high prevalence of communication of suicidal intent for the manic-depressives (and the alcoholics) and a complete absence in the miscellaneous group.[9] The fact that higher figures were obtained for each diagnostic group, respectively, by the investigators than by the private physician (compare Tables 5 and 7) probably results from the investigators' use of a systematic interview inquiring specifically into suicidal communications. Whether the more complete eliciting of suicidal ideas by questionnaire has practical clinical usefulness is yet to be determined. The attending psychiatrist was also asked whether the possibility of suicide had been a reason for deciding to admit the patient. The manic-depressive group when compared with the miscellaneous group was admitted significantly more frequently because of the possibility of suicide.

[9] The diagnostic groups were those determined by the investigators. The questionnaires were answered by the attending psychiatrists independently of the investigators' diagnoses. The correlation is, therefore, all the more striking.

CORRESPONDENCE BETWEEN INFORMATION FROM PATIENTS AND FROM INFORMANTS

A survey of Tables 4 through 6 indicates that patients and informants differed little in the proportions reporting particular categories of suicidal communication or reporting patients as giving any suicidal communication, although a few more informants than patients gave positive responses.

When the answers of each patient were compared with those of his own informant, a high degree of agreement was again found (Table 8). The amount of agreement between patients and their informants did not differ significantly between diagnostic groups. Agreement was higher when the

TABLE 8

CORRESPONDENCE BETWEEN PATIENTS' AND INFORMANTS' RESPONSES CONCERNING SUICIDAL COMMUNICATIONS

Categories of Communication	*Manic-depressive disease*		*Miscellaneous group*		*Alcoholism*		*Total sample*	
	*No.**	*%†*	*No.**	*%†*	*No.**	*%†*	*No.**	*%†*
1. Desire to die	46	80	8	75	29	76	83	78
2. Better off dead	46	70	8	88	29	89	83	78
3. Statement that his family would be better off if he were dead	46	78	8	75	29	93	83	83
4. Statement of intent to commit suicide	46	80	8	50	29	89	83	81
5. Suicide attempts	46	96	8	100	29	100	83	98
1-5 Total	230	81	40	78	145	90	415	84
1-5 At least one + in any of the 5 categories	46	85	8	75	29	79	83	82

* No. = Number of possible agreements or disagreements for any category or combination of categories when each patient's answer was compared with his own informant's. The numbers are not identical with those in Table 3, column 3, because in 2, 1, 1, and 4 instances, respectively, it was not possible to do a complete interview with the patient and his informant.

† Per cent agreement between the patient and his own informant. The agreement could be a positive one—both answered affirmatively—or a negative one—both answered negatively.

communication was by means of an actual suicide attempt than when it was purely verbal. In addition to analyzing total agreements between the patient and his informant, affirmative answers alone were analyzed by interviewing both the patient and the informant. In categories 1 to 5, 41 positive responses were given only by informants, compared with 27 positive responses given by patients only (Table 9). This is further evidence that informants gave more positive responses than did the patients themselves. This excess of positive responses, however, is strikingly limited to category 4, the specific statement of intent to commit suicide. There is a 107% gain in information with regard to category 4, compared with an average gain of only 31% for the remaining categories combined. Apparently patients either tend to forget having made statements of intent to commit suicide or are less willing to admit having made such statements than to admit other statements concerning death and suicide.

The method of study previously outlined indicated that informants were always interviewed before the patients, and since they were interviewed first and tended to give more positive responses than the patients, differences cannot reasonably be attributed to examiner bias.[10] If such bias existed, it should have been in the direction of increasing the prevalence of communications reported by the patients, based on the prior information obtained from the informant. Further evidence that examiner bias was not important is the agreement of our results with those of Cassidy, *et al.*(6) who showed that manic-depressive patients, when asked only one question about having had suicidal thoughts, gave a positive answer in 45% of cases. In the present study, no single question elicited more than a 40% positive answer from the manic-depressives (Table 6). It was concluded, therefore, that reports of suicidal communications by the patients in this study were probably not falsely high.

COMPARISON OF THE PRESENT GROUP OF MANIC-DEPRESSIVES WITH A PREVIOUSLY STUDIED GROUP OF COMPLETED SUICIDES WITH THE SAME ILLNESS

The purpose of this comparison is to ascertain whether the communication of

[10] To exclude bias rigorously, it would have been necessary to vary randomly the order of interviewing the patient and the informant and not to permit the same investigator to interview both a patient and his corresponding informant.

TABLE 9

CORRESPONDENCE BETWEEN PATIENTS' AND INFORMANTS' POSITIVE RESPONSES CONCERNING SUICIDAL COMMUNICATIONS FOR THE TOTAL SAMPLE*

Categories of Communication	*A Both positive*	*B Pt. only positive*	*C Inf. only positive*	*% Increase* x
1. Desire to die	14	9	9	39%
2. Better off dead	17	7	11	46%
3. Statement that his family would be better off if he were dead	16	8	6	25%
4. Statement of intent to commit suicide	13	1	15	107%
5. Suicide attempts	10	2	0	0%
1-5 Total	70	27	41	42%
1-5 At least one + in any of the 5 categories	31	7	8	21%

* The individual diagnostic groups each showed the same pattern of differences as did the total sample.

x Increase in positive answers resulting from interviewing informants was computed by dividing positive answers by informants only (C) by total patient positive answers (A+B) and multiplying by 100. If category 4 is excluded from the total, and the percentage calculated for the remaining categories, the percentage gain is

$$\frac{26}{57+26} \times 100 = 31\%$$

suicidal intent is helpful in assessing the risk of suicide in a patient with manic-depressive disease. An examination of the first two columns in Table 10 indicates that communication is not a differentially helpful factor[11], since there are negligible differences between the present group and the completed suicides in the prevalence of suicidal communications.

On the other hand, a comparison of the first and third columns in Table 10 suggests a different conclusion. If the comparison is made only with completed suicides who were hospitalized during the year before suicide, those who committed suicide communicated their intent in every instance, as compared with only 56% of the present group. This difference is not statistically significant because of the small number of completed suicides who had been hospitalized within a year of their suicides. However, the addition of more cases may indicate that for hospitalized manic-depressive patients, communication of suicidal intent may be an important factor in predicting a serious risk of suicide subsequent to discharge. Also remaining to be studied is the important question of the relationship of suicidal communications in a non-hospitalized group of manic-depressives to completed suicide. The next step, therefore, in this series of studies is to investigate suicidal communications in manic-depressives who are not thought to be ill enough to be hospitalized or who refuse to be hospitalized. The study of such a group would give a definitive answer to the value of ascertaining the presence or absence of suicidal communications in predicting the risk of suicide.

[11] The conclusions of this section are based on the assumption, which will have to be verified by follow-up, that very few or none of the present group of manic-depressives will commit suicide within the year subsequent to their discharge from the hospital. If some suicides do occur within this period, it will be important to learn whether they occurred only among patients who had communicated suicidal intentions.

Summary and Conclusions

1. A study was made of the suicidal communications of 87 patients admitted to a short-term care, private psychiatric hospital.

2. There is a high prevalence of suicidal communications (68%) in such patients.

3. There were 16 different ways of communicating suicidal intent. The most frequent ways were statements by the patient that he wanted to die, that he would be better off if he were dead, that his family would be better off if he were dead, and that he intended to commit suicide. Each of these was made by at least one-third of the patients.

4. The use of suicidal communication as

TABLE 10

Communication of Suicidal Intent in Manic-Depressive Disease: Comparison of the Present Group with a Previously Studied Group of Completed Suicides (2, 3)

Categories of Communication	*Present Study*	*Completed Suicides*	
		Entire Group	*Hospitalized* *
	N=48 % †	*N*=60 %	*N*=9 %
1. Desire to die	25	25	67
2. Better off dead	37	25	56
3. Statement that his family would be better off if he were dead	31	17	33
4. Statement of intent to commit suicide	35	42	22
5. Suicide attempts	15	23	11
1-5 At least one category +	56	63	100

* Hospitalized *in a psychiatric hospital* within a year prior to the completed suicide. These 9 patients are part of the group of 60 patients.

† Percentages are from informants' reports only (Table 6), since these were the only ones available in the completed suicide group.

a taunt or threat was infrequent, occurring in only 7% of patients. The great majority of communications were, therefore, not perceived as a means of manipulating the environment for ulterior reasons, but seemed rather to be expressions of hopelessness and despair.

5. The suicidal communications tended to be varied and repetitive.

6. The preoccupation with suicide was not a "way of life" for these patients. Over two-thirds of those who communicated suicidal ideas had begun talking about suicide only within one year of admission, and almost one-half within only 3 months prior to admission.

7. Patients with manic-depressive disease showed a much higher prevalence of suicidal communications than did patients in the miscellaneous group.

8. There are frequent references in the psychiatric literature that everyone, or almost everyone, has at some time thought of suicide. It is evident from the findings noted in conclusions 6 and 7 that there is a vast difference between these presumably evanescent and transient thoughts of suicide and the suicidal preoccupations that lead to the suicidal communications described in the present study. These communications do not occur in everybody (in fact, in only one-third of the miscellaneous group, even though they were ill enough to be in a psychiatric hospital) and when they do occur, in the majority of instances they have been present for less than a year. It may very well be that thoughts of suicide in the clinically well persons referred to in the literature are clinically meaningless and unrelated to the suicidal communications and to suicide which may occur in psychiatrically ill patients.

9. It is probable that in patients ill enough to be admitted to a psychiatric hospital those with manic-depressive disease and chronic alcoholism account for the vast majority of patients who make any suicidal communication.

10. There was a high rate of agreement, over 80%, between patients and informants concerning suicidal communications. These data were obtained by means of a systematic clinical interview in which each question was asked of each patient and informant, and in which all positive answers were explored in detail. The finding of such a high rate of agreement suggests that it is possible to obtain, by means of a systematic interview, reliable and presumably valid information concerning even such a psychologically sensitive area as suicidal preoccupation.

11. There was one category of suicidal communication—the specific statement of intent to commit suicide—that the patients answered affirmatively less frequently than did the informants. Apparently the patients were reluctant to admit to, or did not remember having made, such a specific statement of suicidal intent, although they readily discussed other concerns with death and suicide.

12. The findings in this study of a high rate of suicidal communication in manic-depressive disease and chronic alcoholism are similar to the findings in a group of completed suicides previously studied. It will next be necessary to study ambulatory patients with these illnesses in order to ascertain the value of suicidal communication as an aid in the prevention of suicide.

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EXPERIENCES OF A PSYCHIATRIST AS A MEMBER OF A SURGICAL FACULTY [1, 2]

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The Departments of Psychiatry and Surgery, University of Louisville School of Medicine, are favorably impressed with the value of collaboration in the teaching of general surgery at both undergraduate and graduate levels. This impression is predicated upon the initial success of an exploratory period of integrative teaching of more than two years' duration, during which time a psychiatrist has been assigned full-time to the Department of Surgery.

His participation has been strictly limited thus far to the area of general surgery; that is, it has not included the surgical specialties such as gynecology and orthopedics. The method has been to attend the regularly scheduled clinical conferences, seminars and teaching ward rounds on the general surgery service in the Department's main teaching facility, the Louisville General Hospital. This is a city-county charitable institution with 170 beds for general surgical patients. Approximately 1,200 major and 1,400 minor operations were done in 1958 upon a total of about 2,000 inpatients and 5,000 outpatients on this service.

Every patient on 2 of the 4 general surgical wards has been seen by the psychiatrist for periods which have varied from brief contact during ward rounds to an accrued maximum of 10 hours. Patients on the other 2 wards and from the clinics have been seen only on referral.

Clinical research has been an integral part of the program and has been concerned with certain studies on pancreatitis and delirium, the results however not being germane to this particular report. Basic research concerning the electrophysiological correlates of animal behavior is just getting underway and will offer further opportunities for collaboration with the surgeons in the future. The point to be made here is that the areas of research initially selected have been those more readily appreciated by the surgeon upsophisticated in psychiatry.

The need for an interdisciplinary approach to integrative teaching is intensified by the lack of teachers who have themselves developed a multidisciplinary method. Collaboration of surgeons and psychiatrists in such teaching has previously been only occasional and largely on a part-time basis, although there are a few exceptions(1, 2). Effective communication has thus been limited and this has persisted despite a recognition of the need by such prominent surgeons, for example, as Cope, DeBakey, Elkin, Janes, Moyer and Price(3). Until teachers in these fields come to know and understand each other, their efforts to facilitate the correlation of information in others must result in only a limited success at best.

The concept of full-time collaboration is considered important for the individual members of the two disciplines to best identify with each other and be thus prepared for a more effective exchange of ideas. Titchener and Levine(4) have outlined some of the common grounds of psychiatry and surgery in a treatise directed in part to the surgeon. More research concerning the psychiatric aspects of surgical patients is needed, but the lesson it teaches will require the presence of the teacher.

The objectives and purposes of integrative teaching have been outlined in the Report of the 1951 Ithaca Conference on Psychiatric Education(5). They are implied in the breadth of modern medical science and concern the facilitation of the correlation of knowledge from diverse areas of emphasis. One of the participants in the Conference made the following comment:

. . . Let us not lose sight of the fact that what is to be correlated is *information*, and

[1] Read at the 116th annual meeting of the American Psychiatric Association, Atlantic City, N. J., May 9-13, 1960.

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not courses, not teachers, not students, not schedules; that where this correlation is to occur, is in the *mind* of someone; that for a student to correlate two facts, he must already possess both facts . . .

We are in agreement with this statement and are of the opinion that medical students, surgical residents and surgeons already have in mind many facts when they come to the clinical discussion concerning their patients. With respect to their psychiatric information, however, there is often a blind spot. Frequently they possess a significant amount of such information but do not trust their observations, fearing that psychiatry is equated with subjectivity and unaware that its data, in many cases, are no more and no less observational than those of other clinical disciplines. Subjectivity is further equated with emotion and, since subjectivity is a bad word, a valuable diagnostic and therapeutic tool accordingly becomes untrustworthy. Emotions are recognized as somehow important, but unscientific, and therefore not capable of being correlated with other data. Furthermore, the process of looking at one's own emotions is recognized as not always a pleasant one.

Although one might characterize the situation in a number of different ways, the most significant problems seem to be those of dualism in the approach to the patient and a certain rigidity in the attitudes of the student or physician towards psychiatry. These attitudes are often colored by denial and by a form of compensation which both obligates and qualifies the individual to form certain opinions of psychiatry which are then applied to the patients. However one characterizes the situation our practical emphasis in teaching would remain unchanged; with a significant amount of information already present, our efforts to facilitate correlation have been just as concerned with attitudes and emotions as with technical and theoretical information. The effort has been to teach primarily in terms of the present and future, with emphasis upon treatment, history taking, the physician-patient relationship and diagnosis by inclusion rather than exclusion.

Two principles have been particularly important in molding our method in teaching. The first concerns our effort to supplement the surgical teaching program without the appearance of doing so by combining parts of two completely separate disciplines. In this respect we have avoided the use of technical jargon as much as possible, and comments and questions concerning any aspect of the patient are encouraged from any source, much in the same way as reported by Early and Gregg(6). When comments are made the effort is directed more toward reinforcing their positive aspects than toward supplying additional data at that particular time. The usual question as to how much is organic and how much psychological has been progressively diminishing in frequency.

The second principle is related to the first in that both have the common aim of preventing dualism in dealing with the patient. It has concerned the role of the psychiatrist and in this respect he has assumed more a role as catalyst than as consultant. Psychiatric consultation from the usual sources has thus continued unchanged. This has not prevented a discussion of these same patients by the psychiatrist in this program. It has, however, helped to avoid a primarily service function rather than one of teaching and it has helped to motivate a wider range of clinical discussion. The implication of this role has been that the psychiatrist was not present only because of the occurrence of overt psychiatric disorders in surgical patients; that he was, in fact, interested in everything pertaining to each patient, though by no means professing to be expert in any field outside his own.

The attitudes of the surgeons have undergone an interesting change since the inception of this program. The psychiatrist was initially faced with skepticism, was then accepted and expected to perform primarily as a psychiatric consultant, and was next placed in the role of internist. At present the clinical discussions are more appropriate to both his multidisciplinary background and his specialty, their content being less oriented toward one facet of the patient to the relative exclusion of others.

The period of initial skepticism was characterized by a sincere politeness on the part of the surgeons, but with little call upon the psychiatrist for comment. Often their

questions, when they did occur, would concern subjects obviously outside the area of psychiatry and which no psychiatrist would logically be expected to discuss even though he knew the answers. This gradually diminished and within 6 months the acceptance of their colleague was symbolized by their offering him an office within their departmental area.

Requests now came with increasing frequency for consultation on patients with overt psychiatric complications. All such requests were met, but with the provision that a concomitant psychiatric consultation be obtained from the usual source and that its recommendations for treatment be followed. Gradually this provision has become routine on the part of the referring surgeons and this routine has persisted despite annual and rotational changes in the house staff. At the same time the reasons for referral have changed. No longer is the presence of psychosis, for example, a sole reason for referral, for now the referral is based more upon an interest in understanding the patient and less to obtain help with a part of the patient that is someone else's business. The traditional and impersonal consultation form is no longer used and the psychiatrist is now asked by the surgeon to see the patient with him.

For a less well-defined and briefer period, the psychiatrist was placed in the role of internist. Although a part of his training had been in internal medicine, he was certified only in psychiatry and took care with the surgeons to stay within the latter role. Despite his lack of definitive response to questions directed to him concerning such subjects as the dosage of digitalis and the effects of transfusion upon tests for sickle cell anemia, the frequency of such questions increased for a few weeks. On one occasion he agreed with the surgeons that the internists had improperly discussed some postoperative syndromes in an interdisciplinary seminar without inviting the surgeons' participation. In the criticism of this, the psychiatrist's opinion was repeated and its significance reinforced by referring to him as a "certified internist."

SUMMARY

The constant presence of a psychiatrist in a surgical faculty is a powerful motivating force *per se*, and his role in the eyes of the surgeons is of more importance than an active exchange of specific psychiatric information in the successful inception of a collaborative teaching program of this sort. Following such inception an increasing exchange of ideas will take place. The need for such an exchange between psychiatry and surgery is at least as great as is the need for correlative teaching in general.

Some observations of a psychiatrist attempting together with a surgical faculty to meet this need have been described. Our program is young, and there are usually several good ways of doing the same thing. For these reasons, and because of the wide variation in local conditions, we do not offer this report as a model which is necessarily applicable in other medical schools. We do hope, however, that there will be an increasing collaboration among psychiatrists and surgeons in the correlative teaching of surgery.

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TRAINING IN PSYCHOTHERAPY : THE USE OF MARRIAGE COUNSELING IN A UNIVERSITY TEACHING CLINIC [1]

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Teaching psychotherapy has many problems. There are too few therapists for too many patients. Treatment methods are frequently based on social and economic status, the availability of teachers experienced in analysis and other factors, rather than on evidence favoring one method or another (8).

One difficulty involves conceptualization. Dogmatic attempts at definition often develop technical jargon, formulae and rituals of procedure employed almost mechanically and automatically. Pseudo-disagreement may occur when therapists employ different frames of reference without realizing it. "Schools" of psychiatry have fought over which level of communication was most important : intrapersonal, interpersonal, or social. The therapeutic effectiveness of various possible interpretations has not been scientifically proven(4). Ideas about "cause" have shifted from the simple cause-effect relationship to "feedback" or "spiral" systems(16).

Another difficulty involves experience. The therapist learns ultimately by treating patients. The beginner is hindered by inexperience, feelings of inadequacy and anxiety. He often feels overwhelmed by the need to explore the depths of the total personality and the complexity of past relationships. He may flounder and compensate by speculation, theory and fantasy. When personality problems are recognized and examined he can learn to treat more effectively. The mechanical use of psychiatric concepts, psychotherapy and stabilized rituals are often monotonously and inappropriately employed. Witness the boring and unimaginative nature of many case readings. Rigidity stifles the corrective emotional experience(3).

Psychotherapists have attempted to shorten and improve treatment by experimentation. Adler, Alexander, Ferenczi, Rank and Rado are notable examples(2, 3, 7, 14, 15). The time-honored model of a one-to-one therapeutic relationship is yielding at times to a broader point of view. Often the patient is a part of a group of sick people with whom he interacts, in a sort of *folie à deux, trois* or more(5, 10, 17, 19). These people need to be treated too. It is often not advisable to refer these involved persons to other therapists. The literature reports an increasing number of therapists who treat more than one member of a family(1, 6, 9, 11, 12, 17).

Residents, we believe, should see in operation many methods of helping patients. To meet this need, the department of psychiatry of the University of Pennsylvania School of Medicine, has developed a broad and flexible training program which meets residency requirements. Through the Marriage Council of the Division of Family Study of the department of psychiatry, residents may participate in an interdisciplinary graduate program which includes didactic material, group discussion, direct counseling experience with married couples, and individual supervision. The resident spends one day each week for an academic year at Marriage Council. The staff of Marriage Council from time to time present case discussions to the psychiatric staff and regularly attend case conferences.

Marriage counseling is the process through which a trained counselor assists two persons to develop abilities in resolving to some workable degree, the problems that trouble them in their interpersonal relationships(13). A basic assumption is that all individuals grow to greater adequacy and maturity in their relationships if not blocked by such obstacles as loneliness, fear, hostility, guilt and their displacements, or trans-

[1] Read at the 116th annual meeting of The American Psychiatric Association, Atlantic City, N. J., May 9-13, 1960.

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ferences which prevent a person from experiencing the present as it really is and hence behaving effectively. New experience in communication is offered, and a search for more realistic solutions of present difficulties is made in an atmosphere of acceptance and understanding. The process is not encumbered with detailed consideration of conflicts in the past, their devious and disguised transferences, or with intense and difficult ventilations of feeling.

If during the counseling process an individual can experience new understanding of himself and his partner and more satisfying ways of communicating, searching, understanding and behaving, he can often apply these to his family life. Experience has shown that for the marriage problem to be dealt with most effectively, the couple should often be treated as a unit by one therapist(13). The following case treated by a senior counselor illustrates the method used at Marriage Council and the kind of presentation given to psychiatric residents for discussion and learning.

A married couple, referred to Marriage Council by a psychiatrist who knew them socially, were in their early thirties, American born, Jewish, married 10 years with 3 sons. Mrs. Jacobs was 5 feet tall, and weighed 175 pounds. She was affable, dramatic and anxious. She complained of obesity and shock at her husband's sexual rejection in finding her obesity unattractive. She wished that her husband were more "masculine," that they could handle finances more satisfactorily. She feared she had "held the reins too tight."

The husband was short and plump with an amorphous quality. At first he denied marital problems, but soon described a strained atmosphere at home, his wife's unwillingness to let him travel in his job, his inability to say no to her, his fear of his wife's anger, his inability to confide in her, his loss of interest in sex, and his repulsion because of her overweight.

The pair had begun to date in their teens and were married in their early twenties, with both families' approval. Their first child was born by Caesarean section 3 years after their marriage. Though Mr. Jacobs earned $7,500 per year as an administrator and worked as a salesman on weekends, they had little money for current expenses because of debt.

The wife seemed to be an aggressive, dependent woman still tied to her mother. She was frustrated and angry with her mother's critical attitude toward her, but was unable to face and deal with her feelings. Though she indicated interest in more sexual activity, there was "something in her that went against it." She had little capacity to postpone gratification and used food as a major source of satisfaction.

The husband was a passive, dependent man. He was hostile in a quiet way, preferring to avoid difficulty. He evaded responsibility by his passivity and had little capacity for self discipline. He showed strength in his education and job achievement, but had low self regard.

Mr. and Mrs. Jacobs were both seen on a weekly basis for 7 months in a total of 24 individual and 5 joint interviews. Initially the therapist concentrated on strengthening Mrs. Jacobs' capacities to deal with everyday life. Mrs. Jacobs' marital problems were intertwined with her difficulties with her mother. As she more adequately handled her mother's interventions in her marriage, her anxiety abated and her self-esteem grew. She began to express resentment about her mother's domination, but added apologetically that her mother "wanted her to be happy or was doing this for her welfare." Mrs. Jacobs realized that when she felt her mother's displeasure she felt a "terrible emptiness," and would eat. After this realization she started to do something about her weight. She had inadequate knowledge of her sexual function and grew up with attitudes that sex was bad, undesirable, and she felt guilty about it. Considerable time was spent clarifying anatomical facts and attitudes about sexuality. She then realized that she had not minded being fat because it made her less attractive sexually, and developed a capacity to confide romantic fantasies to the therapist.

Mrs. Jacobs had felt she had to "make it up to her mother because her father had spent time in prison." In treatment she began to wonder whether her mother had after all been such a victim. She began to recognize that her mother had made the children feel guilty because of her suffering, although she had actually had had a part in her husband's offense.

Mr. Jacobs talked about many phases of development. He described sexual experiences, his difficulty in self-assertion and the hostility that underlay his behavior. He brought up his mother's directions of "never answer back, never strike back, tomorrow will be another day."

Mrs. Jacobs had been relating to her husband in the dominating way that her mother had treated her. When her mother made another unreasonable request of her son-in-law, he finally refused, and his wife backed him up despite the mother's rage. Mrs. Jacobs reported

she felt differently after this non-complying expression with her mother and found that she could say no to her without becoming upset.

The couple worked out a financial plan together and assumed more adequate responsibilities as parents. Mrs. Jacobs joined in community activities as an outlet for her aggressive needs and continued to lose weight. At this point counseling was concluded.

A husband and wife with a marital problem precipitated by his sexual rejection of her were seen in a triadic counseling relationship over a 7 month period. The therapist set up an accepting relationship with both, emphasizing their strengths, avoiding sore points. This helped them to be less defensive and enabled them to bring up real issues. The strong participating relationship with the therapist helped the wife to stand up to her domineering mother and achieve insight into her hunger for food. By discovering better ways to handle her day-to-day problems she developed increased strength and self-esteem and became able to assess her attitudes about herself and sex. She could face her disappointments in, and hostility to, her husband and replace romantic fantasy with a real cooperating relationship. She lost weight, became more attractive physically and with the decrease in mutual hostility, there developed affectionate, friendly and cooperative family relationships.

The therapist's encouragement and the new found support from his wife enabled the husband to assert himself against his mother-in-law. Binding together they were able to function as a team in handling their children and other life stresses.

Conclusion and Summary

From the example it is seen that favorable therapeutic results took place without going into multiple details concerning orality and intensive personality analysis.

To illustrate these techniques as they were used in a marriage counseling case, the significant details of a serious interpersonal conflict precipitated when the husband rejected his obese wife, have been presented. Both partners were seen individually and jointly by one therapist. The therapist focused on the day-to-day experience, eliciting the patient's feelings about reality situations which involved relationships to each other, parents and in-laws. Interpretations were kept to a minimum and were expressed simply, without technical terms. Ego strengths were supported. Ventilation of hostility was kept within tolerable limits. Solutions to difficulties evolved without going into genetics, details of personality structure, or the analysis of oral eroticism involved in obesity. The frame of reference was generally confined to present reality only occasionally moving into the past. The level of communication was interpersonal with occasional intrapersonal accents. The downward causal "spirals" of hostility, alienation, guilt and inadequacy were replaced with upward "spirals" of acceptance, increasing confidence, self-assertion and self-esteem through the corrective emotional experience with the therapist.

This presentation does not imply that detailed microscopic analysis and intensive psychotherapy should not be employed in some cases and the psychiatric residents familiarized with them. Psychotherapy is an inadequately conceptualized subject. It is difficult to teach. Learning should involve a variety of techniques. Residents need experience in experimental enrichment as well as in conventional patterns of psychotherapy. To answer partially this need, training for residents has been provided in the Marriage Counseling Clinic of the Division of Family Study of the University of Pennsylvania.

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EXPERIENCES WITH LARGE SCALE INTERHOSPITAL COOPERATIVE RESEARCH IN CHEMOTHERAPY [1]

EUGENE M. CAFFEY, JR., M.D.[2]

The Executive Committee of the Veterans Administration Cooperative Studies of Chemotherapy in Psychiatry has accorded me the privilege of presenting a sketch of the program which has developed during the past 5 years into a series of 5 studies of the effects of phenothiazine drugs upon schizophrenic patients, and of "psychic energizing" drugs upon apathetic schizophrenics and depressed patients.

This series of cooperative studies had its beginning with a conference of representatives from interested hospitals in 1955. Details of the development of an organization for research, the problems that arose in selection of questions suitable for cooperative study, design of methodologically sound, safe and practical protocols, and interpretation of the results of the studies are presented elsewhere(1).

When the program began, the VA Department of Medicine and Surgery had passed through its post-war organizational trials. In its psychiatric services had been created an effective medical care group accustomed to working together in an interdisciplinary fashion. The group was greatly concerned about the impact of what was then the future use of ataractic drugs in the treatment of its patients. Perhaps the existence of such a setting, the challenge of such a problem, and the inspirations provided by administrators and by research-minded outside advisors, are the basic requirements for successful cooperative studies. An initial protocol was devised, and subsequent studies have been designed, through a series of conferences with individuals from the hospitals attending on a voluntary basis, aided by representatives from many ancillary services and statisticians. Final decision as to participation in each study has been the prerogative of each hospital and its management.

How large scale have been our cooperative efforts? Figure 1 shows the location of each hospital which has participated in at least one study. We have had from 27 to 37 hospitals in each study; the patient populations have varied from 404 to 805. In the first two studies some 6,000 comparisons between drugs on criterion and background variables had to be computed; in the third 1,080 comparisons were made. Such computational loads, of course, required planning for the use of high-speed computers for data processing. Practical, but manageable problems in communication arose from the geographical spread, the size of populations studied, the presence of a rich variety of points of view in the multitude of observers, and the awesome amounts of data that had to be winnowed for meaningful conclusions. The circumstances presented a severe challenge to the reputed efficacy of the study drugs.

We have now completed 4 studies, are engaged in a fifth, and planning the sixth. All have involved a centralized randomization of the studied population by hospital units and have been of the double blind type. The efficient willing cooperation of the pharmaceutical firms has made it possible for us to give all medications orally in identical capsules. The prime instrument of evaluation has been the Multidimensional Scale for Rating Psychiatric Patients (MSRPP), commonly termed the Lorr scale, although we have used a number of other devices in the studies. We have especially attempted to record laboratory findings and clinical evidences of side effects in a way allowing for summarization. The size of our patient populations has made it possible to use powerful statistical methods, particularly the analysis of covariance, and to investigate something more than 25 variables simultaneously in each study.

The first two studies, in 1957, were linked into one articulated study(2). The first in-

[1] Read at the 116th annual meeting of The American Psychiatric Association, Atlantic City, N. J., May 9-13, 1960.

The VA Cooperative Chemotherapy Studies in Psychiatry.

[2] Staff Physician, VA Hospital, Perry Point, Md.

FIGURE 1

Cooperative Studies in Psychiatry



volved a comparison of chlorpromazine and promazine, in fixed dosage over a period of 3 months, in the treatment of acute and chronic schizophrenic men, with phenobarbital and an inert material for control substances. The second study was a "cross-over" type of extension involving treatment for a second 3 month period of a majority of the patients in the first study. Study III, in 1958, was a comparison of the effects of chlorpromazine, perphenazine, prochlorperazine, triflupromazine, and mepazine, on newly admitted schizophrenic men, with phenobarbital as a control substance(3). The drugs were administered for a total of 3 months, in fixed dosage for the first month, and in a flexible dosage pattern for the remainder of the study. The fourth study, in 1959, now in the analysis stage, involved an examination of the effectiveness upon chronically ill schizophrenic men on a maintenance regimen of chlorpromazine, of a combination of a fixed dose of chlorpromazine and one of the "psychic-energizing" substances (isocarboxazid, imipramine, dextroamphetamine or trifluoperazine) with an inert substance as a control. The energizing drugs were administered for a total of 5 months, in fixed dosage for the first month and in a flexible dosage pattern for the rest of the time. The fifth study, now underway, is designed to examine the effectiveness of "psychic energizers" (isocarboxazid, imipramine, dextroamphetamine with amobarbital), again with a control inert substance, in anti-depressant application, with both men and women. Again there is an initial fixed dosage plan, followed by flexible dosage for the major portion of the treatment time of up to three months.[3]

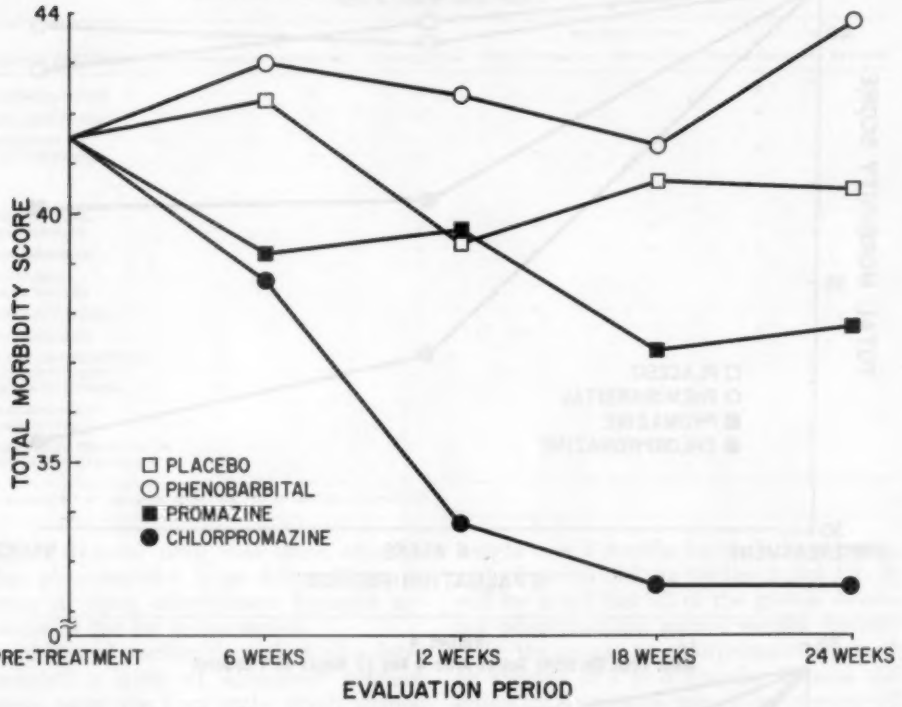
The results of the studies completed [4] will be published in appropriate professional

[3] The generic and trade names of drugs referred to are: chlorpromazine (Thorazine), promazine (Sparine), perphenazine (Trilafon), prochlorperazine (Compazine), triflupromazine (Vesprin), mepazine (Pacatal), isocarboxazid (Marplan), imipramine (Tofranil), dextroamphetamine (Dexedrine), trifluoperazine (Stelazine), dextroamphetamine with amobarbital (Dexamyl).

[4] Detailed information can be obtained by writing the Central Neuropsychiatric Research Laboratory at Perry Point, Md.

FIGURE 2

Mean Total Morbidity Scores After 6 And 12 Weeks of Treatment



journals, but by a brief mention of some of the results we shall illustrate their form. Necessarily the language in which the results are expressed is derived from the measuring instruments and the method of analysis. We are using the most comprehensive single criterion: the total morbidity score derived from the Lorr scale. A decrease in this score is equivalent to a reduction in symptomatology. In study one, chlorpromazine was shown to be superior to promazine in the over-all reduction of symptomatology as illustrated in Figure 2. Incidentally, all differences discussed are statistically significant at or beyond the 5% level of confidence. In study II (Figure 3) it is apparent that this superiority was maintained if treatment were continued for a second 3 months. Figure 4, based on the third study, shows that 4 phenothiazines: chlorpromazine, prochlorperazine, triflupromazine, and perphenazine, were demonstrably more effective than one, mepazine, although all 5 were clearly superior to phenobarbital in reduction of total morbidity. There were no significant differences among the 4 more effective drugs, even though the difference shown between prochlorperazine and triflupromazine may appear, on the graph, to aproach significance.

There is another way in which we can present, generally, findings from these studies of phenothiazines. The Lorr scale is broken up into 11 factors, each representing symptom clusters. In Table 1 are shown the effects of phenothiazines on the Lorr factors, as compared with phenobarbital. The left side of the table shows the results from the first study and the right hand side from the third, each dealing with a different population of schizophrenic men. The first 3 factors are shown to have been altered in a significant way by all of the phenothiazines. The rest of the chart shows the factors upon

FIGURE 3
Mean Total Morbidity Scores At Six-Weeks Intervals

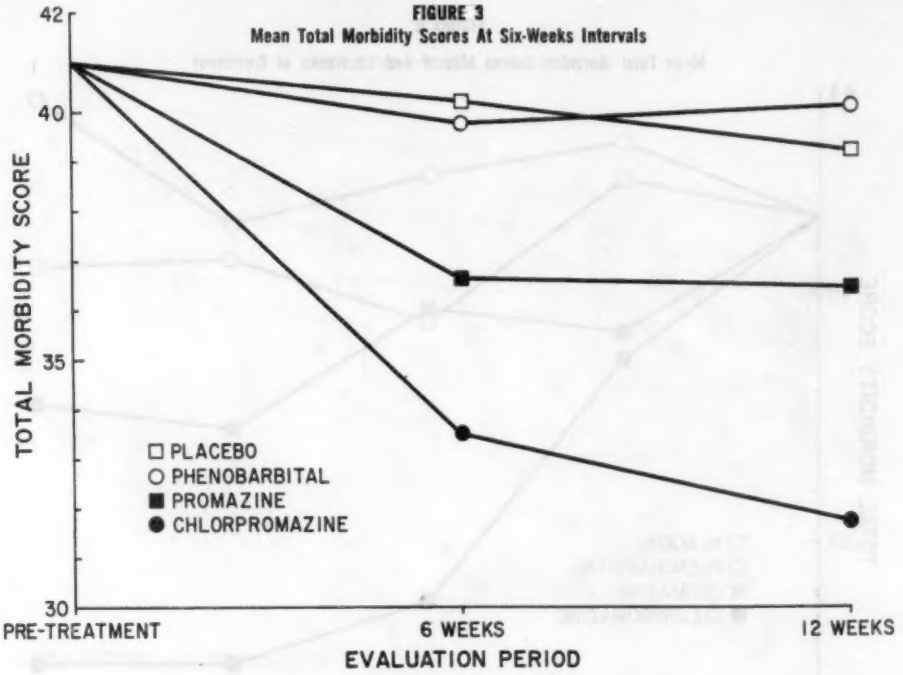


FIGURE 4
Mean Total Morbidity Scores After 4 And 12 Weeks Of Treatment

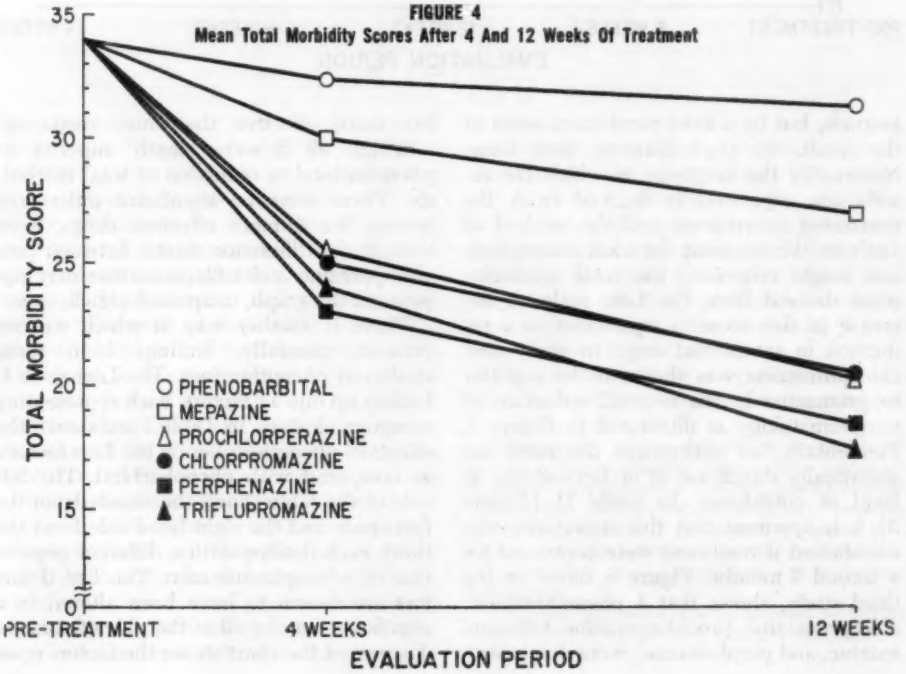


TABLE 1

Symptomatic Changes Of Patients Treated With Phenothiazines Compared with Phenobarbital Over A Twelve Week Period

	PROJECT ONE		PROJECT THREE				
MSRPP FACTORS	CHLORPROMAZINE	PROMAZINE	CHLORPROMAZINE	PROCHLORPERAZINE	PERPHENAZINE	TRIFLUPROMAZINE	MEPAZINE
RESISTIVENESS	*	*	*	*	*	*	*
BELLIGERENCE	*	*	*	*	*	*	*
THINKING DISTURBANCE	*	*	*	*	*	*	*
PERCEPTUAL DISTORTION	*	*	*	*	*	*	
MANNERISMS	*	*	*	*	*	*	
PARANOID PROJECTION			*	*	*	*	
ACTIVITY LEVEL				*	*		
WITHDRAWAL	*					*	
SELF DEPRECIATION VS GRANDIOSE EXPANSIVENESS	*						
MELANCHOLY AGITATION							
RETARDED DEPRESSION VS MANIC EXCITEMENT							

*SIGNIFICANT AT .05 LEVEL AFTER ANALYSIS OF MULTIPLE COVARIANCE.

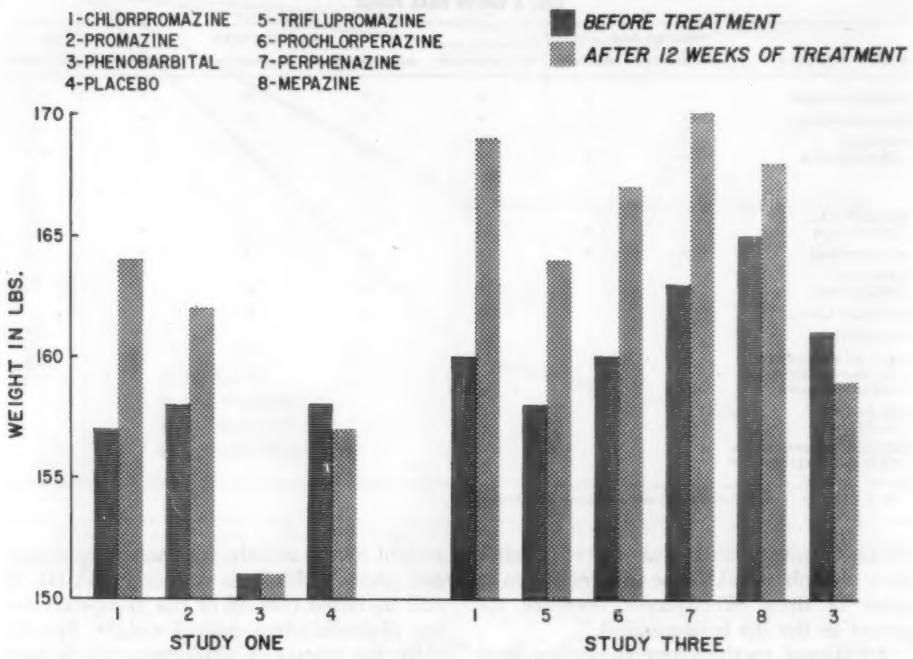
which a given drug was more effective than phenobarbital. Some differentiation in areas of drug effectiveness becomes apparent as the list is descended.

Additional methodological studies have included a study of agreement between raters using the Lorr scale which yielded for total morbidity an interclass correlation of .82(4) ; and a determination of whether the change in clinical condition during the course of study III was due to any of the control variables (age, marital status, duration of illness and so on). A summary of the laboratory findings and side effects experienced in study III has been prepared, showing the inherent variability in a schizophrenic population against which current deviations possibly due to drug effects must be evaluated(5). This summary shows no serious side effects to have been experienced, and a relatively low incidence of Parkinsonian-like symptoms, other clinically evident side effects, or laboratory abnormalities. An examination of the weight gain in each drug group has been carried out because of the problem described by Planansky arising from the use of "tranquilizing treatment on a mass scale, namely, obesity on an epidemiological scale"(6). Figure 5 shows the average change in weight over 3 months for each drug group, and phenobarbital, in studies I and III. It will be noted that all of the groups receiving phenothiazines gained weight. Specifically, the groups on chlorpromazine gained an average of 7 to 8 pounds, whereas the group on promazine gained an average of 4.5 pounds, and the group on mepazine gained an average of 2.5 pounds.

As the program has progressed, there has been continuing assessment of the value of the measuring devices, and consideration of methods for their improvement. Most importantly, employment of the Lorr scale by a large number of psychologists, psychiatrists, and nursing personnel in a clinical setting resulted in many suggestions for its improvement. During the summer of 1959, with the cooperation of the staffs of the hospitals and with the assistance of the Central Neuropsychiatric Research Laboratory, a revision was designed and developed in the Neuropsychiatric Research Laboratory of the Veterans Benefits Office in Washington. This revision led to an interview scale, the Inpatient Multidimensional Psychiatric Scale (IMPS), which, together with a new ward observation scale, the Psychotic Reaction Profile (PRP) developed meanwhile by Dr. Lorr, was put into use in our fourth and

FIGURE 5

Weight Changes With Phenothiazine Treatment



fifth studies. It is expected that out of this testing will come a greatly improved instrument for patient description and for measurement of treatment effects. Besides improving the old, we have recognized with increasing clarity the need to account for the possible significance of the attitudes of staff and patients on the demonstrated effects of the drugs. In the fourth and fifth studies we have introduced scales designed to produce information about the attitudes of psychiatrists, clinical psychologists, social workers, nurses, nursing assistants, and patients toward mental illness, and towards the applicability of chemical methods to its treatment. In the fifth study, we have introduced, too, a follow-up step with the hope that we will be able to learn something of the natural history of depressions and the extent to which beneficial effects of treatment may persist.

The existence of the cooperative studies has, as it was hoped, engendered concomitant studies of the cooperative study patients by individual hospital investigators. These have included examinations of electroencephalographic changes, drug excretion rates and psychological effects. These smaller specialized studies have broadened the scope of the investigation of the role of chemotherapeutic agents in mental illnesses and provided suggestions for more detailed investigation.

The studies have been truly cooperative, devised and executed by the investigators who are responsible in each hospital for their completion; coordinated through an executive committee; and operationally controlled by the Central Neuropsychiatric Research Laboratory which supervises the randomization procedures, prepares the forms and manages the planning and execution of the analyses. Working together in this way we have been able to reduce the lead time in the production of studies from 1½ years to 6 months, and have been able to devise and execute increasingly complex and sophisticated studies while maintaining

flexibility and an attitude of venturesome inquiry. We have shown that the phenothiazine drugs are effective in reducing the symptomatology of schizophrenic patients and that there is no difference in the effectiveness of one as compared with another of four of those drugs examined in our study III. The program has provided reliable information about the drugs and about new methods and measures to the profession at large, and has stimulated research interest and developed better informed habits of observation among our personnel.

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THE CLINICAL SCREENING OF PSYCHOPHARMACOTHERAPEUTIC AGENTS: A CONSIDERATION OF METHODOLOGY[1]

JAMES H. EWING, M.D., KARL RICKELS, M.D., AND HAROLD H. MORRIS, M.D.[2]

The initial screening of psychopharmacotherapeutic agents is an important area of research in psychiatry. It has received little focused discussion in the literature from the standpoint of general approach and methodology. The authors propose to describe and comment upon one approach to problems confronting the investigator in this difficult area in which generally accepted standards of control often must be sacrificed in order to assure maximum safety of the patient and in order to minimize the chance of overlooking subtle or even obvious leads. While many have accumulated far more experience than we in drug screening, we wish to call attention to certain aspects of a program which offers some unusual advantages and opportunities for this type of research activity.

FUNCTIONS OF A PATIENT DRUG SCREENING UNIT

For initial orientation, certain basic functions of a drug screening program might be proposed. These include:

1. The detection of agents which have one or more unique properties of human pharmacological action, an influence upon special mental functions or a normalizing effect upon abnormal mental states or symptoms.
2. The screening out of agents which are inactive or which produce undesirable side effects.
3. The presentation to pharmaceutical companies and other laboratories of preliminary data on a wide range of routine observations of biochemical, physiological and psychological actions, dosage range and clinical psychiatric effects, as well as special leads uncovered in any of these categories.

These data must be rapidly transmissible in standardized form and in readily understandable terms to both drug firm and clinical investigator. Out of the chance observation of the preliminary study can come important hypotheses for definitive test and later better controlled clinical experiments.

DESCRIPTION OF FACILITIES AND MILIEU

In order to set forth a number of our views concerning methodology, it is necessary to sketch briefly certain features of our own set-up which differ from those of many other workers.

Our research facility is located on an 85 bed inpatient psychiatric service of a 3 year old community general hospital in the city of Philadelphia. This service and our research unit have been in operation since the opening of the hospital. The service functions as an inpatient teaching and research center of the Department of Psychiatry of the University of Pennsylvania which is located close by.

The patients come to us from a predominantly lower and middle class socioeconomic urban environment.

The psychiatric service provides short term therapy. The treatment orientation throughout the service is best described as eclectic. Therapeutic approaches of the regular and visiting staff represent a wide range from group and intensive psychoanalytically-oriented psychotherapies to standard physiological treatments.

The general milieu of the service reflects a high degree of patient participation in the day to day policy making and administration. Throughout the service there is no segregation by race, age (adolescence through old age), diagnosis, nor sex (except for separate dormitory space).

The research unit occupies ample space within the physical boundaries of the service.

[1] Read at the 115th annual meeting of The American Psychiatric Association, Philadelphia, Pa., Apr. 27-May 1, 1959.

[2] Department of Psychiatry, University of Pennsylvania and the Mercy-Douglass Hospital.

PERSONNEL

The key members of the research unit staff are full-time in investigative work. They include 2 psychiatrists, a research nurse and an experimental psychologist. The day to day evaluative service of all first year residents and most of the regular clinical staff are also called upon in our drug screening procedures.

ADVANTAGES AND OPPORTUNITIES OF THIS TYPE OF SERVICE FOR PRELIMINARY DRUG SCREENING

Provided certain difficult problems of control can be worked out, we feel that the type of facilities, milieu and personnel described offers certain advantages and special opportunities for effective patient drug screening. In the first place, acutely ill psychotic subjects provide an experimental population which tends to include wider individual ranges of gross psychopathology, patterns of illness less complicated by hospitalization and other therapies and greater responsiveness to therapeutic intervention than chronic hospitalized patients. There is evidence that responses to drugs depend in large measure upon the interaction of drug and numerous other variables difficult to identify, let alone control adequately. It seems justifiable to take the position that subtle drug effects are most likely to occur and, with appropriate procedures, may be best observed on a relatively small, eclectic and intensive treatment service where the features of hospital management, vissicitudes of ward life and amount of attention by personnel are somewhat equated among research subjects, and between them and service patients. Such a service with its heterogeneity of population characteristics and *laissez faire* milieu allows, and indeed calls forth, a wide range of adjustmental behavior for inspection. This is in contrast to the situation on a static and highly structured ward of chronic hospital patients.

A second advantage is the opportunity for intensive and nearly continuous individual surveillance of a relatively small number of subjects (our unit functions most efficiently with 10 to 15 subjects under test at one time).

Multiple independent observers, studying the same phenomena with the same measuring devices and by similar standards, heighten objectivity and help to circumvent individual blind spots.

The cross checking of phenomena by observers of different professional backgrounds and training, whose self-conceived and actual roles in the hospital life differ, also serves to minimize experimental bias.

The conception and development of such a drug testing operation as a permanent and continuing one provides for the accretion of relevant experience by all involved. This enhances efficiency of both clinical and research personnel. In the case of our own unit, the daily personal interaction of research and clinical staff, the sharing of tasks of observation and the assumption by the research team of some responsibility for patient treatment seem to have minimized the problem of witting and unwitting sabotage of research efforts by clinical personnel. This contrasts with the consequences of introducing special research projects onto an established and structured ward by outside research personnel, thus disturbing accustomed routine.

The effective utilization of the above described facilities, milieu and personnel is dependent upon such matters as methods of evaluation, selection of experimental population and experimental design. We propose to discuss these in the light of our own experience and efforts.

METHODS OF EVALUATION

A variety of evaluation techniques and measures have been tried. Our present battery includes the following:

1. Laboratory tests.
2. Routine physiological measurements.
3. A physical sign and symptom checklist of 50-odd items. This is supplemented by additional information from daily rounds.
4. A ward observation-behavior rating scale which measures 4 degrees of deviation from the presumed norm in a number of items. The items are grouped into categories and subcategories of behavior on a scale from noninterpersonal appearance and behavior to interpersonal and intragroup behavior.
5. A quantitative mental status form used

in the context of an unstructured clinical psychiatric interview.

6. A 4-point scale of overall improvement.

In the construction of these tests, special effort has been made to define, standardize and group terms so that their meanings are discrete, consensually valid among our own group and are part of the working vocabulary of most psychiatrists. We suggest that often too little attention is paid to this obvious matter.

In addition to the above measures, one standard rating scale which has been subjected to extensive reliability testing is utilized. We currently employ the Lorr Scale. Finally, scales and checklists are supplemented by the clinical notes of all observers.

FUNCTIONS OF INVESTIGATIVE TEAM

The team functions are divided in the following way. One senior research psychiatrist serves as pharmacotherapist. He assumes responsibility for all matters of patient management relative to the therapeutic trial. Both he and the research nurse on independent daily rounds make ratings and clinical notes. The full-time status of the research nurse allows her to collect and record all data and to oversee the management of all patients as prescribed by the physician. Her notes and ratings are supplemented by those she routinely collects from ward nurses, attendants, occupational and recreational therapists. She spends up to 4 or 5 hours a day in direct personal contact with patients as they go about their daily activities and with the clinical staff.

The resident physician in charge of each patient is also responsible for independent evaluations which are subsequently discussed with him in preceptoring sessions.

It is possible to combat bias by applying the double-blind technique to the weekly evaluations of the second senior research psychiatrist.

In the assignment of functions, additional control is introduced through the provision that all categories of data be evaluated independently by at least 2 members of the investigative team.

SELECTION OF EXPERIMENTAL POPULATION

All patients who are selected by the clinical staff for drug therapies are available for our studies.

A. *Subjects for Initial Trial*

Approximately 5 patients are selected for the unhurried and individualized exploration of specific drug actions over the lower limits of therapeutic dosage range, using oral medication. Special criteria of selection for these subjects include : age between 21 and 45 years, a minimum of 2 to 3 months residence on the service, previous participation in a drug study, chronic illness (over 3 years) with failure to achieve social remission, cooperativeness and ability to report subjective symptoms.

B. *Subjects for Therapeutic Evaluation*

When some idea of relationship between dosage range and effects has been obtained, 25 to 30 additional subjects are used for therapeutic trial.

Approximately 2/3 of this group are selected on the basis of a duration of present episode of illness (not necessarily total duration of illness) of not over 1 year. Although similarity of diagnosis according to official APA nomenclature does not insure homogeneity in terms of drug influencible variables, this portion of the test group is selected from one major diagnostic category chosen for likely responsiveness to the agent under test. It has been felt that this procedure does facilitate the simultaneous comparative observation of patients.

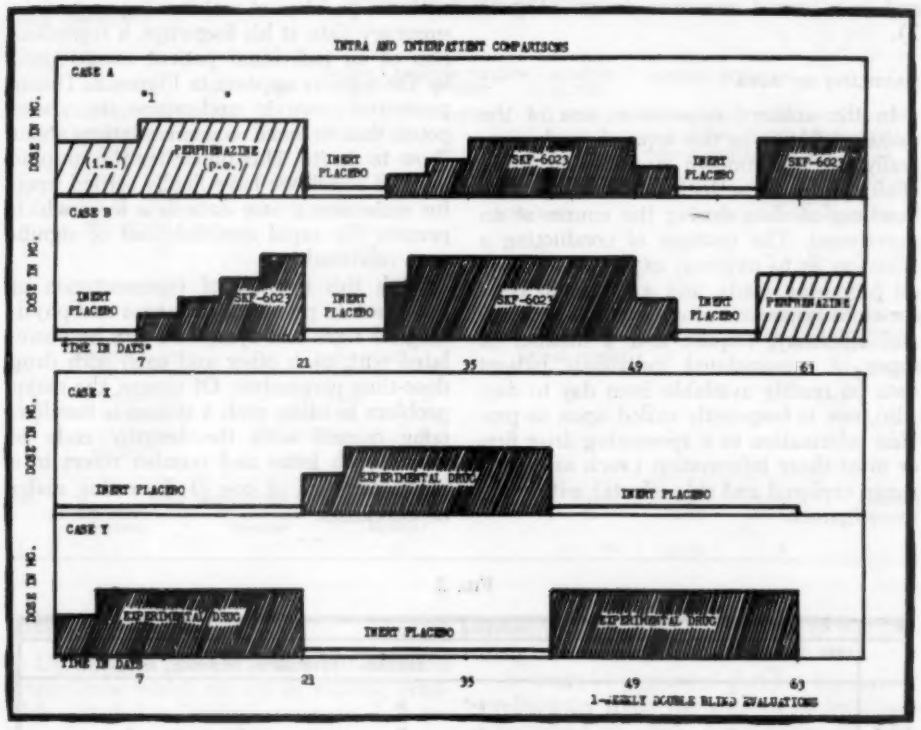
An additional 1/4 to 1/3 of the therapeutic trial group is selected on the basis of common characteristics (target symptoms) such as disorientation, or hyperactivity, upon which the influence of the drug seems to be of special interest.

EXPERIMENTAL DESIGN

Our experience has convinced us of the advisability of studying all experimental drugs against an active standard referent agent and against inert placebo. Care in the selection of this active drug is important. A number of criteria for its selection have been found helpful.

In the preliminary evaluation of an experimental drug against inert placebo and

FIG. 1



standard referent agent it is possible to utilize both intrapatient and interpatient "and between patient" comparisons in order to enhance the objectivity and scope of data.

Figure 1 gives medication schedules of 4 cases simultaneously under observation. It illustrates some of the comparisons that can be made. Among others these include in the same patient :

1. Comparison of response patterns to experimental drug following initial and subsequent inert placebo intervals.
2. Comparison of short trials on experimental drug with those on standard referent agent.
3. Comparison of experimental drug effects over a range of doses.
4. Comparison of double-blind observations made at weekly intervals.

Certain simultaneous interpatient comparisons are also possible through the appropriate manipulation of dosage schedule and of drug conditions. Examples are comparisons of :

1. The effects of standard referent agent in one case against effects of experimental drug in another case.
2. The responses to therapeutic doses of experimental drug in different cases.
3. The effects of equivalent body weight doses of experimental drug.

It is obvious that in this type of experiment only relatively acute effects can be observed and that such short inert placebo trials limit the conclusions which can be drawn from the data, especially using subjects with illness of short duration under the influence of an intensive treatment-oriented milieu. Quantitative comparisons can only be rough estimates for other reasons too.

As experience and number of cases in a particular series accumulate, it is frequently possible to improve the quantification of

observed drug effects through changing from a flexible to a rigid dose schedule and to a formal crossover design (Figure 1).

HANDLING OF DATA

In the authors' experience, one of the major problems in this type of work, generally of less concern to those in other clinical research activities, is the systematic handling of data during the course of an experiment. The strategy of conducting a study so as to uncover, exploit and check on promising leads, and a continual need for close inspection of data to insure safety and efficiency, require that a number of types of accumulated individual patient data be readily available from day to day. Also, one is frequently called upon to provide information to a sponsoring drug firm or must share information (such as dosage range explored and side effects) with other investigators.

Although each worker will have his own preferences and ideas as to how to cope with the problem of maintaining up to date summary data at his fingertips, a reproduction of an individual patient record used by the authors appears in Figure 2. This is presented more to underscore the above points than to make recommendations about "how to do it." This illustrates the graphic method which we have finally settled upon for maintaining case data in a form which permits the rapid establishment of significant relationships.

With this method of representation of data, certain psychiatric changes and physiological signs and symptoms can be correlated with each other and each with drug dose-time parameters. Of course, the major problem in using such a system is familiarizing oneself with the lengthy code in which each letter and number refers to a particular item of one of the rating scales or checklists.

FIG. 2

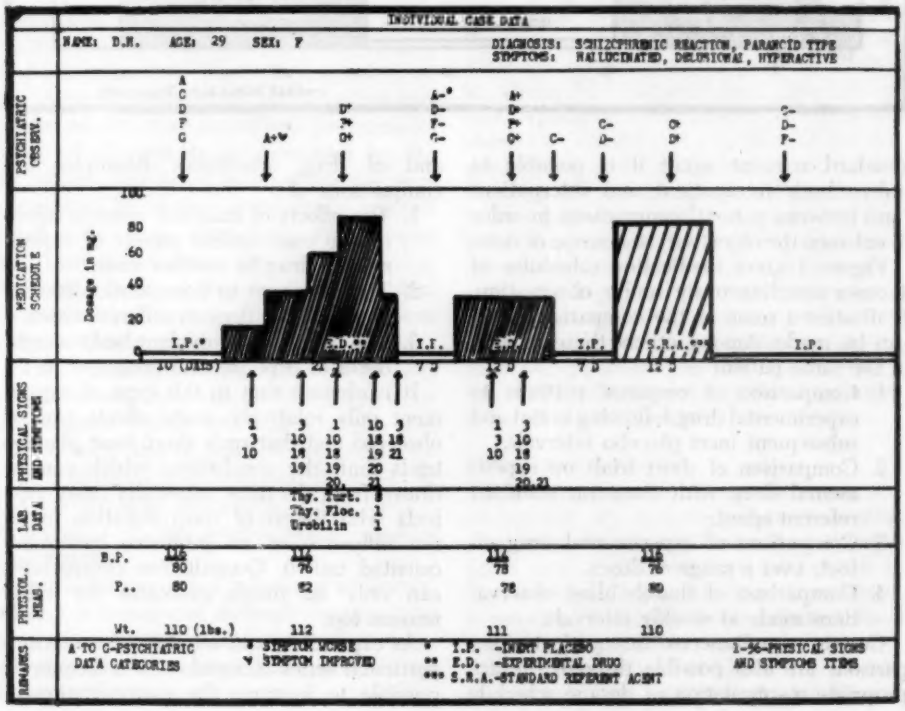


FIGURE 3

Individual Case Summary Report

DRUG : SKF-6023

NO.	DIAGNOSIS	AGE	SEX	WEIGHT (Lbs.)	DURATION PRESENT EPISODE	DURATION ILLNESS	CLINICAL SYMPTOMS
1	Schizophrenic reaction, Paranoid type	29	F	110	5 months	5 months	Hallucinated, delusional (paranoid), hyperactive, hostile-inappropriate, uncooperative

NO.	DOSAGE RANGE MINIMUM (mg. per day)	MAXIMUM	TOTAL DOSE (mg.)	TOTAL DAYS	CONTROLS (CONDITION AND TIME-DAYS)					
1	10	80	1,400	33	IP 10	ED 21	IP 7	ED 12	IP 7	SRA 12

NO.	PHYSICAL SIGNS AND SYMPTOMS	LABORATORY FINDINGS		WEIGHT CHANGE (2 or more lbs/wk)	BLOOD PRESSURE CHANGES (max. drop on drug-over 10 mm. Hg systolic) SYSTOLIC	DIASTOLIC
1	Drowsiness, tenseness, parkinsonism, dystonia	Thy. Turb. Thy. Floc. Urobilin	8 1 1	0	none	

NO.	WARD OBSERVATION BEHAVIOR Gen. Appear. Behavior	Interpersonal Behavior	Intragroup Behavior	MENTAL STATUS	LOBR SCALE	CLINICAL RESULTS	REMARKS
1	1	2	3	2	50-18	2	

REPORTING OF DATA

Figure 3 is presented to emphasize the importance which we see in making available detailed individual summary data for drug firm or clinical investigators, since others may want to seek clues as to a possible significant relationship.

The reporting of overall as opposed to individual summary data in preliminary psychiatric drug testing is the subject of another paper in preparation and will not be considered here.

GENERAL COMMENTS

The authors are mindful of the fact that there are numerous limitations inherent in the general approach to preliminary drug screening which they have presented. For example, long range therapeutic and toxic effects cannot be assessed. An experimental sample of 30 to 35 patients is not large enough to guarantee detection of all acute therapeutic or side effects. The fact that a large percentage of acutely ill patients improve irrespective of whether or not a drug is employed, especially on an active treatment unit, is not entirely compensated for by careful attention to problems of methodology.

It might be suggested that for this type of preliminary study the authors go too far in attempting to apply quantitation to their observations. Whether or not this is the case, it does serve to encourage care and specificity of observation.

Finally, in our own case, the type of program described is part of a larger research effort. This leads us to comment that the type of preliminary screening activity described in this paper can be incorporated into an investigative program in such a way that it contributes to other types of clinical research.

SUMMARY

1. The methodology of the initial patient screening of psychopharmacological agents is a relatively neglected but important area for discussion and improvement.
2. The main functions of this activity are to uncover safely and efficiently a wide variety of leads about desirable and undesirable pharmacological and psy-

chiatric actions. This requires balance and compromise between the practice of the clinical art of pharmacotherapy and the use of procedures of good scientific control.

3. There are advantages in conducting such investigations on a research and teaching-oriented, active and eclectic treatment, inpatient service, using small numbers of acutely ill psychotic patients under intensive observation for periods up to 2 to 3 months. Subtle drug effects can be seen, and such a milieu calls forth a wide range of adjustmental behavior for study.
4. Multiple observers of different professional backgrounds and training, using a variety of rating scales and checklists to evaluate independently the same phenomena, enhance objectivity, diminish bias and help to circumvent individual blind spots.
5. There are special problems of selection of subjects since one is interested in observing the effects of drugs upon a large spectrum of psychopathological factors while insuring safety.
6. In the experimental design the testing of a new drug against a carefully selected active referent agent and inert placebo, and the use of intrapatient and interpatient comparisons are feasible and to be recommended. Although starting with flexible adjustment of dose, a rigid dosage schedule and true crossover design can be employed to advantage safely in the later stages of many studies.
7. Along with the collection of data by open experiment, provision can be made for employing double-blind technique.
8. There is a special need in preliminary drug testing for systematic handling of individual case data during each investigation in order to uncover and exploit leads, insure safety and to allow for the report of certain kinds of summary data to drug firms and to other investigators.
9. The detailed post-experiment report of individual case data allows others to seek significant correlations other than those of interest to the investigator himself.
10. This particular kind of research can be effectively incorporated into a larger research program.

PSYCHIATRIC FACTORS IN MEDICAL STUDENTS IN DIFFICULTY: A FOLLOW-UP STUDY [1]

RAYMOND W. WAGGONER, M.D., Sc.D.,[2] AND
THORNTON WOODWARD ZEIGLER, Ph.D.[3]

For years there has been increasing interest in the methods which can be used in the selection of persons for various types of activity: the military service, industry, and professions. In some medical faculties, there has been a desire to develop more knowledge about the relationship of student personality adjustment and medical school success. Of particular interest are the intellectual and personality characteristics of an individual who could and should become a qualified physician. For over 20 years psychiatrists and psychologists from the Department of Psychiatry of the University of Michigan Medical School have carried out a program of systematic evaluation of medical students who present problems as a result of either scholastic or social difficulty. Also evaluated are those applicants whose credentials or regularly scheduled interviews raise questions regarding admission. An earlier paper presented in 1946 described the program being carried out at that time and some of the problems (1). The present paper is a description of the development of this program with a follow-up on students referred during the 3 years 1943-1945.

Early in the program the number of students referred for evaluation was relatively small. Most of the students were examined by the authors. Under such circumstances, it was possible to establish a uniform method of evaluation and for the psychologist and psychiatrist to discuss each student before making a final report to the Medical School administration. Students were referred for various reasons, such as scholastic difficulty, social and family problems, and even for a brief therapeutic session concerning his reaction to being requested to withdraw from school.

The most frequent reason for referral has been an unsatisfactory scholastic record or unacceptable behavior. Occasionally the student has come to the psychiatrist himself, or has asked for such referral. As the administrative staff of the Medical School and the members of the Promotion Board began to develop more confidence in the techniques being utilized, there was a progressive increase in the number of students referred for evaluation. This increasing load required more than the original psychiatrist and psychologist. Inevitably this led to variations in the reports. For example, a few of the psychiatrists felt that it was unwise or unnecessary to utilize psychological studies and for a time many of the students who were referred for psychiatric evaluation had no psychological study. Even after a definite policy had been established in which all referred students were to have a psychological study, the psychiatric reports varied somewhat in accordance with the psychiatrists making them. These variables have made it difficult to develop a valid report.

Certain philosophical questions present themselves for consideration. For example, in our material are a number of medical students who were doing satisfactory work from an academic point of view but who had made a poor adjustment with their associates or had presented serious social problems. Psychological and psychiatric evaluations proved some of them to be seriously schizoid or even schizophrenic. Since such a student may do satisfactory academic work, we are faced with the dilemma of the propriety of allowing such a student to graduate. The Medical School would seem to have an ethical responsibility in this matter. On the other hand, there are well-adjusted students whose intellectual ability, reading ability, or capacity for

[1] Read at the 116th annual meeting of The American Psychiatric Association, Atlantic City, N. J., May 9-13, 1960.

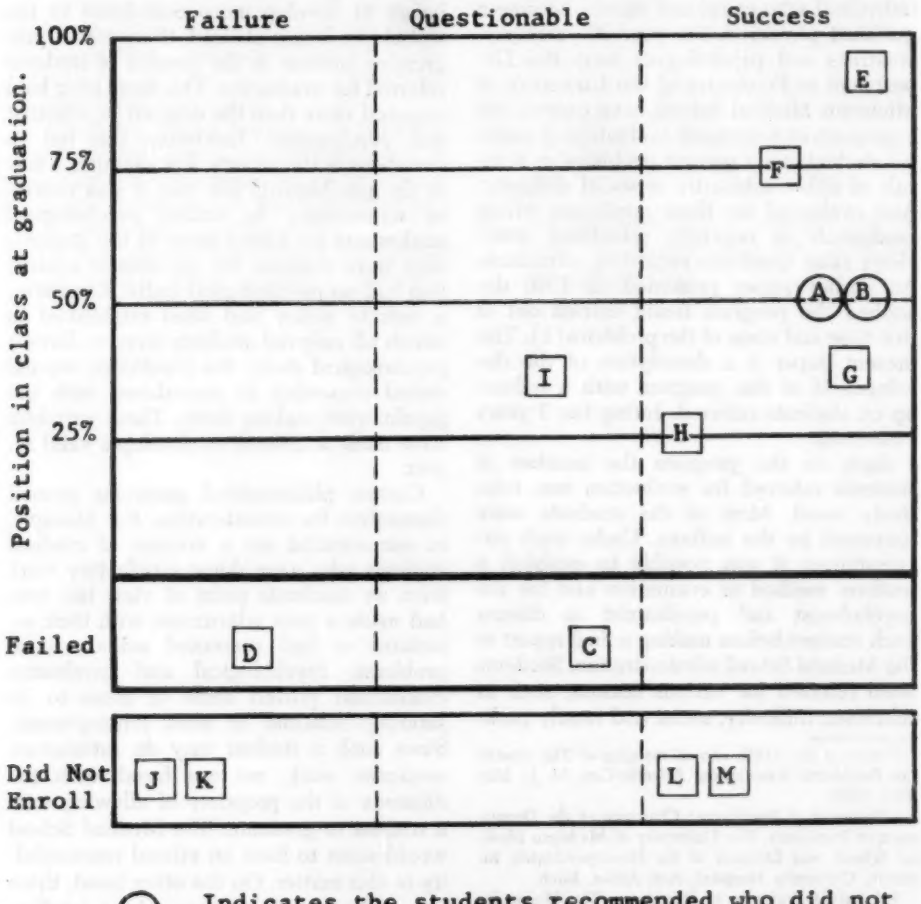
[2] Professor of Psychiatry; Chairman of the Department of Psychiatry, The University of Michigan Medical School, and Director of the Neuropsychiatric Institute, University Hospital, Ann Arbor, Mich.

[3] Assistant Professor of Psychiatry, The University of Michigan Medical School, and Chief Psychologist of the Neuropsychiatric Institute.

concentration is such that they do marginal or unacceptable academic work. The question is immediately raised as to whether these students should be given sufficient assistance to do acceptable academic work, or whether they should be dropped because of failure to meet basic scholastic requirements.

In order to make an evaluation of our recommendations to the Medical School, we have reviewed the records of those students or applicants who were seen over the 3-year period noted above. Figure 1 shows our experience with 13 applicants. Two whose admission was recommended went elsewhere; one of these is now an assistant professor of psychiatry. One applicant, who was considered of high intellectual capability but who appeared to be somewhat immature and emotionally inflexible, and in whom there was a question of adequate motivation for the study of medicine, was recommended for acceptance with hesitation but was later dropped be-

FIGURE 1
MEDICAL SCHOOL PROGRESS OF 13 APPLICANTS
PREDICTION



cause of inability to meet scholastic standards. Another student was considered immature, unstable and with a paranoid reaction. Against strong advice, he was admitted, had serious difficulty during the freshman year and was dropped because of an unsatisfactory scholastic record in his second year. Included also are 4 applicants who were referred before being accepted because of questions raised during the preadmission interview or because of inadequate preparation or borderline scholastic records. These were all recommended for admission. Of these 4, one graduated as fifth in a class of 132 and is reported to have been an excellent intern. One graduated 23rd in a class of 92, was considered to be an unusually good intern, and an excellent resident. Two graduated in the lower third of their class but have made satisfactory records subsequent to graduation. One preadmission student with high intelligence but with questionable vocabulary and reading ability, whose Rorschach report suggested that he was striving beyond his capacity, was given a poor prognosis, as decidedly borderline, and likely to fail. He was admitted and eventually graduated 74th in a class of 107. As an intern he did good work, was considered cooperative, pleasant and intelligent. He is now an assistant professor in a medical school and considered to be an exceptionally well-qualified physician. Of 4 other applicants of whom we recommended 2 for admission and suggested rejection of 2, there is no further record.

The 18 students who were seen because of scholastic difficulty after their admission to Medical School are shown in Figure 2. Three who had been dropped but were readmitted on our recommendation all completed Medical School with somewhat below average records. Each of these students was given advice and support and all functioned satisfactorily as interns. Fifteen students were referred for scholastic difficulty before the problem had reached the point of dismissal. Included are 5 students who were considered unlikely to be able to complete their medical school career because of personality difficulties or lack of motivation. These students were eventually dropped because of inability to do satisfactory scholastic work. All but 2 of the remaining 10 had significant emotional problems, with which they were given some help. The other two were considered to be overly sensitive but otherwise had no significant emotional problems. All of these were kept in Medical School on our recommendation. These students were rated scholastically at the time of graduation in the lower third of the class, with the one exception, whose record was mid-class level. With one exception for whom we have no record, these graduates were reported as doing satisfactory to excellent work as interns and/or residents.

In evaluating these findings it appears that the ultimate success or failure correlates moderately well with our clinical and psychological prognosis. Such a study necessarily raises interesting philosophical conjectures. It would be of value to establish not only college credit requirements but personality and intellectual characteristics in order to qualify for the study of medicine. Craig has said that an "individual should have a desire to be of service to humanity and have scientific inquisitiveness. He should have basic intelligence, good judgment, sympathy, tolerance, honesty and humility"(2). Macnamara indicates that the virtues of a good doctor are "goodness, kindness, patience, unselfishness, humility, reliability and cheerfulness"(3).

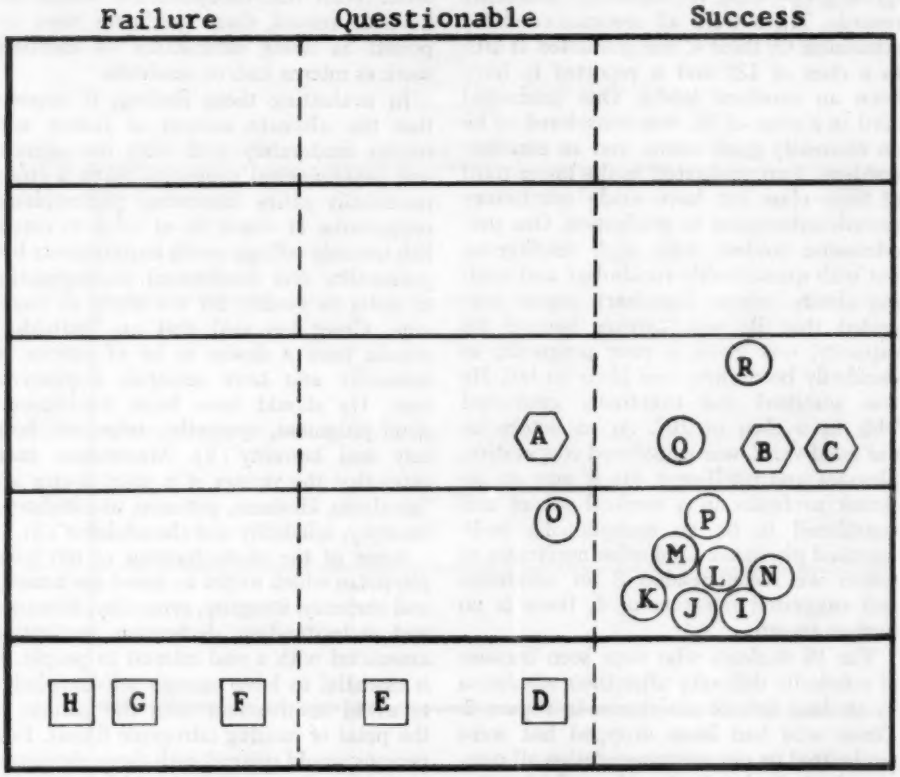
Some of the characteristics of the good physician which might be listed are honesty and sincerity, integrity, sympathy, tolerance and understanding, dedication, motivation associated with a real interest in people. It is essential to have enough self-knowledge to avoid involvement with the patient to the point of causing iatrogenic illness. Few persons would quarrel with these characteristics as qualities which should be possessed by the physician. The problem is the extent to which the Admissions Committee should insist upon the presence of these characteristics or of such factors as a high level of intelligence or of scientific inquisitiveness.

In a study of the relationship between potential predictor and criteria of performance of medical students, Dr. Lowell Kelly, Chairman of the University of Michigan Department of Psychology, and co-workers developed a number of predictor variables

and criterion measures(4). From their study it appears that there is little agreement among alternative criteria in reference to internship ratings. Interestingly enough, a variable considered under the title, "Over-All Promise," was not significantly related to any of 200 predictor variables. There was little correlation with any medical school grades or with state or medical board exams. However, there was a surprisingly high correlation with sociometric ratings made by peers in the senior

FIGURE 2

MEDICAL SCHOOL PROGRESS OF 18 STUDENTS REFERRED BECAUSE OF ACADEMIC DIFFICULTY PREDICTION



○ Students with relatively mild emotional difficulties.

⬡ Students who had been dropped and were readmitted.

□ Students who had severe emotional difficulties or were poorly motivated.

year. It is interesting how few of the internship ratings are associated with ability scores or with indices of scholarship. Dr. Kelly, in a personal communication, states that by all odds the best predictor of internship rating are strong vocational interest scores on tests administered before admission to Medical School.

Conclusions

1. A student evaluation and assistance program of the sort referred to here functions most satisfactorily if the number of psychologists and psychiatrists are sharply limited, and if they work together as a unit with the Admissions Committee and the Promotion Board.

2. Prognostic evaluations based upon such studies appear to be relatively valid.

3. More attention should be paid to personality characteristics and to motivation in the selection of students for the study of medicine.

4. Research should be undertaken to determine those factors which correlate best with success in the field of medicine. An example of such research is that which has been done by Dr. Lowell Kelly and his associates. This type of investigation should be continued and amplified.

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EVALUATION OF EMOTIONAL DISTURBANCE IN 403 ISRAELI KIBBUTZ CHILDREN [1]

MORDECAI KAFFMAN, M.D.[2]

For a little more than 40 years, the Israel communal settlement called Kibbutz (plural, Kibbutzim) has carried out a very unique program in child-rearing. In these settlements, partly for objective and partly for ideological reasons, children are brought up from birth in separate children's homes. They are reared by trained nurses in groups of 6 children of equal ages which are merged into larger groups numbering 12 to 18 when they reach the age of 4. This group of age-mates remains rather constant in size and composition throughout the years from kindergarten through high school.

During the first half-year of life, although the infant lives in the children's house, the mother-child relationship very much resembles that of the traditional family. The baby experiences the mother in terms of daily routine as a source of gratification and safety. The usual maternal functions such as feeding, cleaning, handling and fondling are mainly performed by the mother. Most of the infants are breast-fed unless there is a clear-cut medical contraindication. The nurse, during this period, takes care of the management of the infant's house and gives guidance to the mothers. Later on the nurse gradually takes over the care of the child and at the end of its first year she is wholly responsible for it. Usually by this time the process of weaning has been completed. During the first half of his second year the child leaves the infants' house to go with his group to the toddlers' house which is designed to hold a maximum of 6 children. A new nurse and aide take care of him during the day-time. The nurse is not only concerned with the physical care, emotional needs, and well-being of the children in her charge, but has also a decisive role in discipline and social areas. She trains the children in self-feeding, toilet habits, independence, and group interaction. Therefore, the nurse assumes functions and duties usually performed by the parent in Western society.

As already mentioned, during the first half year of life and gradually less in the second half, the child is in close contact with his mother. From the second year he is with his parents in their room daily in the two or three hour interval between the parents' return from work and the child's bedtime. On rest days the child spends almost the whole day with his parents. The time that children and parents are together is absolutely child-oriented. The nature of parent-child interaction depends naturally upon the ages of the children. These hours are generally used as the child wishes: playing, reading, taking a walk. Both the father and the mother are equally active in sharing their time with the children.

The question whether the Kibbutz system of education may be considered as a variety of "maternal deprivation" has been raised by Bowlby(1) and Caplan(2), as well as in the special workshop devoted to this problem at the 1957 annual meeting of the American Orthopsychiatric Association(3). Unfortunately very little reliable data had been collected to corroborate "clinical impressions" about how much the Kibbutz child fits or deviates from the so called normal standard. Among difficulties to be overcome we may mention the choice of variables to be investigated; the criteria to be adopted in quantifying human behavior; and the way of obtaining information from the child's environment. Moreover, since very few attempts have been made to study the behavior of unselected groups of "normal" children, it is rather difficult to compare symptoms and behavior of Kibbutz children in relation to "normal controls." As David Rapaport(3) put it:

> We can not be sure whether our own upbringing, which is hidden by privacy and restraining conditions, has or does not have the same kind and amount of "behavior problems" which become manifest in collective upbringing which lacks such hidden factors.

[1] Read at the 116th annual meeting of the American Psychiatric Association, Atlantic City, N. J., May 9-13, 1960.

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SAMPLE AND METHOD

This study was carried out in cooperation with the Education Department of Kibbutz Artzi.[3] Its purpose was to explore the frequency and intensity of a wide range of behavior problems within the total population of children of three Kibbutzim. The settlements selected for this study may be considered as a cross section sample of the Kibbutz Artzi movement.[4] The group investigated included all the children of these settlements up to the age of 12, totalling 403 children who have been followed on a systematic recording basis from the first few days of life.

The present report is limited to the analysis of the prevailing behavior problems in the sample of children investigated for a period of 12 months (throughout the year 1956). The data recorded include: 1. Developmental information gathered from the nurses' records; 2. Structured interview of the nurses and teachers on each child; 3. Interviews with the parents for additional information and tentative appraisal of the child-parent relationship; 4. Repeated psychiatric observation of the child in regular life situations, namely, interaction, with his group-mates, mealtime, child-parent meeting and bedtime.

An attempt was made to give precise definition to every one of the items under investigation in order to compare at each age level the extent of behavior deviation of the Kibbutz child in relation to a hypothetical "normal model." Although there was a theoretical recognition of the variability, lack of agreed standards, and difficulty of differentiating normal from abnormal behavior, the findings showed a reliable and positive correlation among the separate sources of information used in this research. A fair positive agreement to differentiate normal from abnormal behavior in a given child was found in the separate evaluations of the psychiatrist, nurse, teacher, and parent. In the rather few cases of lack of agreement, a special coordination conference was held to deal with the reason of the different appraisals. The data were integrated by the author, who knew each one of the children and parents for a period of from 1 to 10 years—an average of 6 years.

A single 4 points scale for the scoring of behavioral items was used to include normal behavior, and slight, moderate, or marked deviations from the norm. The items selected for evaluation were mainly chosen with two goals in view: first, easy detection of the behavior item by direct observation performed by trained and untrained people involved in the research. Second, an attempt was made to pick out behavior characteristics which might uncover specific problems of the Kibbutz system of upbringing.

There were 217 boys and 186 girls; 219 were under the age of 6; 184 children 6 to 12 years old were attending primary school.

Table 1 shows the general findings in the total group of 403 children, while Table 2 presents the percentage of the prevalent behavior problems at different age levels.

From the data reported hitherto on behavior characteristics of large unselected groups of children(4, 5) it appears that the incidence of behavior problems among the Kibbutz children fits into the "normal range of deviation." The analysis of the data shows no evidence of unusual percentage of behavior problems attributable to lack of mothering, although some specific differences were found between Kibbutz children and family-raised children. It seems worthwhile to comment briefly on some of these findings and differences. A more detailed report on each item of behavior investigated will be published in separate papers.

RESULTS

Among the behavior characteristics and problems investigated, the highest peak of incidence was found in relation to thumbsucking. The frequency of the symptom for the age-range of 1.6 to 12 was as high as 28% among 383 children surveyed. In most of the cases the thumbsucking was of mild or moderate intensity; in 5% the symptom was considered of marked severity. The frequency of this particular symptom increases at the age of 2, to reach its maxi-

[3] I wish to express my deep gratitude to Shmuel Golan, Director of the Education Department, for his steady encouragement and helpful advice, as well as for providing the required facilities to implement this research. Limitations of space do not allow me to include the long list of nurses, teachers and educators of the children who cooperated so actively in this study.

[4] Kibbutz Artzi constitutes one of the three largest federations of Kibbutzim in Israel.

TABLE 1

THE PREVALENCE OF SOME BEHAVIOR PROBLEMS IN A REPRESENTATIVE SAMPLE OF 403 KIBBUTZ CHILDREN UNDER THE AGE OF 12

Problems	*Number of children surveyed*	*Age*	*Percentage of problem incidence*	*Percentage of marked deviation*
Thumbsucking	383	1.6-12	28	5
Temper tantrums	383	1.6-12	12	1.5
Enuresis	283	3.6-12	11	—
Masturbation	350	1.6-11	9	.3
Aggression	383	1.6-12	8	2
Eating problems	403	0.1-12	7	.2
Nailbiting	383	1.6-12	7	0
Learning problems	184	6 -12	7	0
Rhythmic Motor Habits	403	0.1-12	5	.5
Breath-holding Spells	199	1.6- 6	3	.0
Night fears	383	1.6-12	2	1
Stuttering	343	2-12.6	2	0
Tics	306	3 -12	1.6	0

TABLE 2

PERCENTAGE OF PROBLEM INCIDENCE AT SUCCESSIVE AGES (SLIGHT TO MARKED DEGREE OF DEVIATION FROM NORMAL)

AGE IN YEARS—PERCENT OF PROBLEM INCIDENCE

Problem	*Up to 2*	*2-3*	*3-4*	*4-5*	*5-6*	*6-7*	*7-9*	*9-11*	*11-12*
Thumbsucking	—	24	55	45	30	54	34	12	0
Temper Tantrum	27	32	5	20	7	23	7	6	3
Enuresis	—	—	31	31	12.5	12	9	4.6	3
Masturbation	1	3	3	12	12	15	13	6	—
Aggression	5	16	8	12	10	15	7	2	6
Eating Problems	5	8	5	10	10	6	6	6	0
Nailbiting	0	0	0	2	10	18	13	12	6

mum between the ages of 3 to 9, at a constant level. In this age-range 41% of the Kibbutz children were thumbsuckers. The figures given by McFarlane, *et al.*(4), as well as Lapouse and Monk(5) for corresponding samples of American children disclose a strikingly lower frequency of thumbsucking, ranging from two to 3 times less than the incidence reported for Kibbutz children. Among Kibbutz children thumbsucking declined rapidly only after the age of 9. No significant difference was found in the incidence of the symptom between boys and girls.

A comparative study was performed among 108 thumbsuckers age 1.6 to 11 and 225 Kibbutz children of the same age who did not present this symptom. No significant differences were found between the two groups as to the frequency and intensity of additional behavior problems. In 26% of the thumbsuckers the symptom was a single one without further significant deviations in the behavior pattern. Where other behavior problems were present the comparison between the group of thumbsuckers and the control group did not reveal any differences of statistical significance.

It seems, therefore, that in a great percentage of Kibbutz children thumbsucking does not represent a consequence of emotional disturbance with increased dependency needs leading to regression to the security of the oral stage. The author assumes that there are at least two reasons to explain the remarkable incidence of thumbsucking in Kibbutz children. First of all, one has to take into account the brief nursing period. The weaning process is begun about the age of 3 months to be

carried on gradually for 6-8 months so that at the end of the first year of life the average baby in the Kibbutz is already weaned and starts feeding himself with a cup or a spoon. The short period of sucking experience may perhaps explain partly the increased incidence of the thumbsucking until a peak is reached at the age of 3. Actually, against this hypothesis stands the fact that there is not a higher frequency of thumbsucking at the age of 2 to 3 (24%) than that found in the United States among children who had a much more prolonged nursing period. McFarlane, *et al.*(4) found 27% of thumbsucking in children aged 1.9 to 3 years old. However, there is a striking difference from the ages 3 to 9, in which the thumbsucking persists and even increases, unlike control groups in which the frequency of the symptom decreases gradually. A possible explanation seems to be in the different approach to the child's symptom in the Kibbutz in relation to the usual family setting. On the whole, thumbsucking is seen by Kibbutz educators as a normal expression of oral gratification needs. Nurses, teachers and parents usually assume a permissive attitude toward the symptom, so that the children at any age may suck their fingers without any external interference. Thumbsucking is simply ignored by the adults, who refrain from using any kind of device to stop it.

In sharp contrast to this high incidence of thumbsucking, a low incidence of eating problems was found in Kibbutz children. Out of 403 children, there were only 29 (7%) with feeding disturbances which included poor appetite and finickiness. Only in .2% of the children was the symptom severe. This figure is far below the usual frequency of eating problems in the family setting at every age level. Lapouse and Monk(5) found in a representative sample of 482 children aged 6 to 12, 20% with reported poor appetite, while at the same age level the symptom was present in only 4% of the Kibbutz children.

Other symptomatic manifestations in the oral area went along with the above findings and failed to reveal evidences of oral deprivation. The incidence of drooling and psychogenic vomiting was negligible. Nailbiting was extremely rare in Kibbutz children under the age of 5, while among children from the age of 5 to 12, the frequency was 12%. This figure is about two to three times below the frequency found by McFarlane, *et al.* for children of the United States(4).

Speech problems were also infrequent among Kibbutz children. Out of 343 children between the ages of 2 to 12, seven children (2%), stuttered. Except for one child, whose stuttering was of a moderate degree, the rest of the group had a rather slight disturbance, and it could be assumed that it would disappear without any special treatment.

Autoerotic manifestations like masturbation and rhythmic motor habits (head rolling, self-rocking, *etc.*) did appear apparently in a similar frequency to the usual estimate for an unselective sample of children. In the Kibbutz setting these are symptoms that may be easily detected. The same rule of non-interference on the part of the educator that was pointed out in the case of the thumbsucking, applies to masturbatory activities. The educator shows a permissive non-punitive attitude and the child masturbatory activity is ignored. For the purpose of this research all play or self-occupation with the sexual organ which was repeated deliberately as a pleasure seeking device was noted as masturbation. The total incidence of masturbation among 383 children at the age-range of 1.6 to 11 was 9%. This figure is somewhat higher than that found by McFarlane(4) for 116 children of the same age (about 5%). It may be assumed that the difference is partly due to difficulties to get accurate data on this matter from the private family. However, it is also possible that the difference is partly related to the parental restraining attitude and disapproval in the private family leading to repression of the autoerotic activity.

Comparison between 122 children at the oedipal age (3 to 6 years old) and 151 older children in the so-called latency period (6 to 11 years old) did not disclose any significant difference in the frequency of masturbation. Both groups showed a similar figure : 10% of masturbation for the "oedipal group" and 11% for the group in the "latency period." As to sex, a significant

prevalence of masturbation among boys was observed in relation to girls, the ratio being 2½ to 1.

The problem of enuresis and encopresis was thoroughly investigated in 283 children between the ages of 3.6 to 12, and it will be dealt in detail in a separate paper. The incidence of enuresis among 283 children was 11% comparable to a representative sample of "normal" children. Yet, comparative evaluation is difficult to establish either because most of the figures on enuresis refer to selected samples of deviant children, or because the figures reported lack accuracy. In most of the papers published hitherto, the prevalence of enuresis has been determined by data collected during occasional home visits in absence of a close followup.

A definite difference in distribution of enuresis by sex was noticed: 73% who wetted were boys and only 27% were girls.

Every enuretic child was studied separately in relation to the presence of other behavior disorders, antecedents of enuresis among siblings and parents, characteristics of child-parent relationship and possible clustering of different types of enuretic children. These findings will be reported elsewhere.

Encopresis was a rare finding among 283 Kibbutz children between the ages of 3.6 to 12. Only two children (.7%) presented soiling of mild intensity, one of them accompanied by enuresis.

Another symptom studied was the presence of repeated night fears. It came as a surprise to us that only two children (1%) presented night fears. Nine additional children were reported as having shown this disturbance in the past two years, an incidence of 3% in 383 Kibbutz children aged 1.6 to 12. This incidence seems to be rather low in comparison with usual figures on night fears frequency. This is particularly striking since the children are alone for most of the night, far away from their parents' houses, while one night watch goes from house to house to check on all the children. Since each round of the night watch requires approximately one hour, maybe additional instances of mild night fears could not be detected and reported.

Several observers have reported a rather high incidence of excessive aggression among Kibbutz children in the toddler and nursery age. Caplan's(2) impression was that Kibbutz preschool children . . . "show an uncontrolled aggression which exceeds by far that which is found among children in normal family circumstances." No objective data were given to confirm this assumption. Moreover, again we do not have reliable comparative data obtained in other types of upbringing.

A careful observation of a group of 383 children ranging in age from 1.6 to 12 was made with regard to the presence of acts of aggression in which a child appears to be repeatedly motivated to hurt or harm another. Acts of aggression were considered those instances in which force was used to take objects or toys from other children, or the play of other children was disturbed by pushing, hitting, biting, destructiveness, *etc.* Children who showed cruelty to animals or people were also included in this category.

It appears that 33 out of 383 children observed (8%) showed different degrees of repeated aggressive behavior. In the great majority of these aggressive children the extent of deviation was considered slight or moderate. Only in 6 children (1.5%) was the deviational aggressive behavior qualified as severe.

As has been reported by other observers, a noticeable sex difference was noted with regard to aggression. Aggressive behavior was 4 times more frequent among boys than among girls (27 to 6).

Likewise, there were differences in the incidence of aggression according to the age-range. Out of the 199 children in the preschool age, 21 children (10%) were classified as aggressive. On the other hand, among 184 children between the ages of 6 to 12 there were only 12 (6%) aggressive ones. This difference probably applies to any kind of upbringing and reflects the effect of socialization in the gradual formation of inner controls. Apparently, the above figures on aggression among Kibbutz children do not substantiate the impression of an unusual, excessive frequency for this symptom. Hyper-aggression in 32 out of 33 children occurred in relation to several other problems which appear with sig-

nificant higher frequency in these children in comparison to the total group. Aggression, temper tantrums, fears, enuresis and nailbiting constituted a definite interrelated cluster of symptoms. While temper tantrums appeared 4 times more frequently among aggressive children than in the total group, fears, enuresis and nailbiting were present two to three times more often in the hyper-aggressive sample of children.

As regards the frequency of temper tantrums, once again we should face the difficulties of establishing the delimitation between normal and abnormal reaction. The symptom was considered and quantified when the child's rage outbursts exceeded in intensity and frequency those of a theoretical "normal model" for the specific age. Each child who reacted with temper tantrum in a repetitive way in response to frustration (at least once-a-day as an average) or had less frequent but unusually intense outbursts, was classified in a separate group. Using this criterion 49 (12%) out of 383 Kibbutz children were included in the group of children with deviant temper tantrums. In 5 children (1.3%) the temper tantrum was severe enough to be considered a major symptom. Temper tantrums declined from the age of 7 onward. Among 232 children under 7, repetitive temper tantrums were found in 40 (17%). On the other hand, the symptom was present in only 9 (6%) out of 151 children in the age range of 7 to 12. Lapouse and Monk(5) who tried to quantify the intensity and frequency of temper tantrum in a representative sample of 482 children aged 6 to 12 found a percentage of 11% in which the outbursts appeared once a day or more. Among 184 Kibbutz children of the same age the percentage of temper tantrum of similar frequency was 9%.

A striking similar percentage of temper tantrums incidence was obtained among boys and girls in the group of 49 Kibbutz children with this symptom.

Breath-holding spells as a result of anger or frustration were reported in a very low percentage of the children. They were observed in 6 children from the ages 1.6 to 3, an incidence of 2.7% among the preschool children.

Summary

The Kibbutz has produced a method of upbringing planned to fit its interests, needs and goals. The most significant differences between the Kibbutz system of education and the traditional Western family can be set down under three headings : the transfer of several parental functions to other adult figures ; the importance of the peer group for the Kibbutz children ; and the similarity of roles assumed by father and mother in the child-parent relationship.

The child is raised in a rather stable peer group whose importance for the child steadily increases from the second year of life on. The process of socialization is mainly achieved through this very early and constant group interaction, with the nurse assuming the role of socializer.

The father in the Kibbutz usually spends more time with his children than in the traditional Western family. Beginning with the second year of life the father is with his children for the same period of time as the mother using this time in most of the cases to be a playmate. The usual sex distinction between the role of provider and caretaker does not exist in the Kibbutz. Despite these striking qualitative differences in their upbringing, the Kibbutz children seem to fit into the normal range of behavior pattern.

A study was designed to explore the frequency and intensity of a wide range of behavior problems within the total population of 403 children aged 1 to 12 years in three different Kibbutzim. No evidence was found of unusual percentage of behavior problems attributable to emotional deprivation. With regard to frequency and intensity of most of the symptoms the findings seem either to match the usual figures in "normal controls" or even appeared less prominently. This was observed in relation to symptoms like aggression, temper tantrum, breath-holding attacks, enuresis, rhythmic motor habits, speech problems, nailbiting, and night fears. A very peculiar difference is the inverted ratio between thumbsucking and eating problems. Kibbutz children at different age levels had 3 times more thumbsucking and about 3 times less eating problems than "normal control groups." No significant differences were found with re-

gard to additional behavior problems between 108 thumbsuckers and 225 Kibbutz children who did not present the symptom. The apparent explanation for the high incidence of thumbsucking, in addition to the early weaning of the Kibbutz infants, seems to be the very permissive approach to the symptom. The low frequency of eating problems and psychogenic vomiting reflects most likely the fact that the feeding functions and training is in charge of the nurse instead of the mother from the end of the first year of life.

In the Kibbutz, as in the traditional family, the parents constitute the most important figure in the child's life. Deviational behavior of Kibbutz children—with exclusion of constitutional factors—is due in the great majority of cases to a disturbed child-parent relationship.

Rich opportunities for research in normal child development are provided by the Kibbutz system of education, and as Bowlby (1) has stressed . . . "it is to be hoped these will not be missed."

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CLINICAL NOTES

(The Clinical Notes report the findings of the authors and do not necessarily represent the opinions of the Journal.)

AMITRIPTYLINE (ELAVIL), A NEW ANTIDEPRESSANT

JOSEPH A. BARSA, M.D., AND JOHN C. SAUNDERS, M.D.[1]

To date, the most effective antidepressants have been the monamine oxidase inhibitors and imipramine. These drugs, however, have limitations in the treatment of depression in schizophrenic patients, for they will frequently exacerbate the symptoms of schizophrenia, causing the delusions and hallucinations either to appear for the first time or to become more florid. This untoward effect is more marked with the monamine oxidase inhibitors than with imipramine.

The purpose of the present study was to test the effectiveness of a new antidepressant, amitriptyline hydrochloride (Elavil),[2] in the treatment of chronic psychotic patients manifesting depression in addition to their other symptoms. Amitriptyline is not a monamine oxidase inhibitor, but is related chemically and pharmacologically to imipramine.

Twenty-eight female patients between the ages of 31 and 60 were chosen for the study. They had been continuously hospitalized from 1 to 23 years. Their diagnoses were as follows: 19 schizophrenia, 4 involutional psychosis, mixed type, 2 manic-depressive psychosis, mixed type, 1 psychosis with epidemic encephalitis, 1 psychosis due to alcohol, deterioration, 1 psychosis due to epilepsy, deterioration.

The description of the patients varied, but on the whole they were clean and neat in appearance, passively cooperative, seclusive, withdrawn, depressed rather than flat in affect, delusional and hallucinated. In 15 patients the depression was agitated, and in 13 quiet and retarded.

All had been on tranquilizing drugs for at least a year, with slight or no improvement in their symptoms. Nineteen had also received a 1 to 3 month course of imipramine in conjunction with the tranquilizing drugs. Of the latter group, 8 patients showed slight improvement in depression with imipramine, 5 no improvement, and 6 grew worse on imipramine, becoming more tense, restless, agitated, and responding more to their delusions and hallucinations. Imipramine was discontinued prior to the present study.

At the start of the study, all of the patients were receiving various tranquilizing drugs. Five were receiving chlorpromazine, 6 a combination of chlorpromazine and trifluoperazine, 5 thioridazine, 8 levomepromazine, 1 prochlorperazine, 1 a combination of prochlorperazine and promazine, and 2 fluphenazine. The dose of the tranquilizers remained unchanged, and amitriptyline was added to the medication, starting at 25 mgs. t.i.d. and gradually increasing in dose until favorable results were obtained. The highest dose used was 50 mgs. q.i.d.

Amitriptyline was continued for 3 to 5 months. At the end of this period, 3 patients were completely free of depression, 17 showed considerable improvement in their depression, 5 slight improvement, and 3 no improvement. Of the 19 patients who had previously received imipramine, 16 were more improved on amitriptyline, and none gave evidence of aggravation of psychotic symptoms on the latter drug. Three patients responded to imipramine and amitriptyline in an equal manner, one with slight improvement and two with no improvement. As with imipramine, the antidepressant effect of amitriptyline was gradual, significant relief of depression appearing usually within 2-4 weeks.

[1] Rockland State Hospital, Orangeburg, N. Y.

[2] This drug was supplied by Merck Sharp & Dohme Laboratories, West Point, Pa.

Side-effects with amitriptyline were few. Two patients felt weak and dizzy in the first three days of therapy, but this symptom then disappeared. One became too stimulated and euphoric on 25 mgs. t.i.d., and this was controlled by reducing the dose to 25 mgs. b.i.d. Blood and urine examinations revealed no abnormalities during the course of the study.

In summary, amitriptyline hydrochloride (Elavil) is an effective antidepressant. It resembles imipramine hydrochloride both chemically and in its clinical action, but it appears to have the advantage of more potent antidepressant effect and less proneness to exacerbate the symptoms of schizophrenia. Therefore, it is especially useful as an adjunct drug in the treatment of schizophrenics who manifest depression in addition to their other symptoms.

CHLORZOXAZONE AS AN ADJUNCT TO ELECTRIC CONVULSIVE THERAPY

OTTO L. BENDHEIM, M.D.[1]

Chlorzoxazone [2] was studied in an effort to find a simple and effective oral relaxant to minimize the hazard of fractures resulting from seizures produced by electric convulsive therapy.

Chlorzoxazone, an orally effective skeletal muscle relaxant was used as premedication in 55 patients with depressive disorders who received from 2 to 18 electric convulsive treatments, so that a total of 464 were given throughout a one-year study period.

The dosage of chlorzoxazone was 1000 mgm. the night before and 500 to 1500 mgm. about two hours before the ECT, which was administered in the morning. The second dose varied with the weight of the patient and the intensity of the seizure anticipated.

Slight giddiness and muscular weakness in two older patients, requiring extra post-treatment bedrest, were the only side effects noted.

Patients receiving chlorzoxazone before electric convulsive therapy were found to be less tense and apprehensive and easier to handle. Premedication with chlorzoxazone resulted in a marked reduction of muscular pull during the electrically induced seizure, with concomitant sharp decrease in incidence of fractures.

[1] Medical Director, Phoenix Institute of Neurology and Psychiatry, Camelback Hospital, Phoenix, Arizona.

[2] The chlorzoxazone used in this study was supplied as Paraflex® by McNeil Laboratories, Philadelphia, Pa.

EVALUATION OF PLEXONAL AS A TRANQUILIZER IN THE GERIATRIC CARDIAC PATIENT

H. DAVANLOO, M.D.[1]

Of all institutionalized patients, it seems fair to say that those in the older age brackets, the geriatric population, present the greatest therapeutic challenge. While the phenothiazines constitute a milestone in the treatment of emotional disorders, they have been less than satisfactory in controlling anxiety and agitation in the geriatric patient because of their propensity to induce extrapyramidal stimulation and hypotension at dose levels below those which provide adequate tranquilization. Various sedatives have also been employed and found wanting because they are apt to induce confusion, disorientation and stupor in the aged patient.

Control of anxiety and tension has been an especially difficult problem in patients with cardiovascular disease. Accordingly, it

[1] Box 349, Waltham, Mass.

was with a good deal of interest that we noted the results reported by Scheifley [2] with the preparation, Plexonal.[3] In a study conducted at the Mayo Clinic, he found this agent markedly effective in relieving anxiety, tension, and restlessness in hospitalized cardiac patients. We were particularly impressed by the decided superiority of Plexonal over meprobamate. It occurred to us that the results we had obtained with the latter, which we had used extensively in our patients, could serve as a yardstick by which we could measure the efficacy of Plexonal.

Plexonal [2] was tested in 40 patients in a female ward of Metropolitan State Hospital. Their ages ranged from 50-85 years and all demonstrated anxiety and restlessness associated with heightened heart consciousness and preoccupation with their blood pressures. At the time this study was initiated, 26 of these patients were receiving meprobamate for their anxiety and 21 were receiving sodium pentobarbital for insomnia. These drugs were withdrawn several days before instituting Plexonal. No change was made in the regimen of cardiotonic or hypotensive agents employed in the 15 cardiac patients and 10 hypertensives.

The dose of Plexonal ranged from 2 to 5 tablets daily. Within 5 days, there was an appreciable reduction in restlessness and anxiety in 33 patients along with a noticeable improvement in mood. The most gratifying results were achieved in those with insomnia, which was relieved in 19 patients by a dose of one Plexonal tablet after each meal and two at bedtime. Depression in two patients was made worse and did not respond until imipramine was added to the daily dose of Plexonal. This combination was maintained for two weeks, after which the dose of Plexonal was gradually reduced until it was removed completely. No appreciable effect was observed in 3 patients, 2 of whom were classified as severe hypochondriac states, while another 2 patients reacted with excessive drowsiness.

A comparison of Plexonal with the therapy previously employed showed that 17 did better on Plexonal than on meprobamate, 6 did better on meprobamate than on Plexonal and 3 responded the same to both. Of the 21 who had received sodium pentobarbital earlier for insomnia, 16 demonstrated improved sleep patterns after switching to Plexonal.

SUMMARY

This study indicates that the integrated activity of the ingredients in Plexonal makes it an effective and well-tolerated preparation for the relief of anxiety and restlessness in the geriatric patient. A significant finding was the relief of insomnia which carried over from the daytime use of Plexonal.

[2] Scheifley, C. H.: Proc. Staff Meet. Mayo Clin., 34: 408, Aug. 19, 1959.

[3] Sandoz Pharmaceuticals. Contains: sodium phenobarbital 15 mg., sodium barbital 45 mg., Sodium sandoptal 25 mg., scopolamine HBr. 0.08 mg., Dihydroergotamine 0.16 mg.

CONTROL OF HYPERCHOLESTEREMIA AND HYPERLIPEMIA IN A NEUROPSYCHIATRIC HOSPITAL

J. R. SHAWVER, M.D., J. S. SCARBOROUGH, M.D., AND S. M. TARNOWSKI, M.S.[1]

A review of the literature indicates that the concept of association of atherosclerosis with levels of cholesterol and lipids is tentatively accepted. We were interested in the practicability of attempting to control this disorder of lipid metabolism in patients who are also subjected to intensive psychiatric therapy. Treatment was with massive quantities of nicotinic acid as recently reported.[2]

Patients in this initial study have a common diagnosis of schizophrenic reaction, chronic undifferentiated type, one G.T.G. having had a leukotomy in 1954. Their ages vary from 26 to 42 and all are on different

[1] Veterans Administration Hospital, Waco, Tex.

[2] Parsons, W. B., Jr., and Flinn, J. H.: A.M.A. Arch. Int. Med., 103: 783, May 1959.

TABLE 1

NAME	DAYS	TOTAL CHOLESTEROL MG.%	TOTAL LIPIDS MG.%	PHOSPHOLIPIDS MG.%	LIPOPROTEINS BETA	LIPOPROTEINS ALPHA
W.J.J.	Control	570	5967	860	99.9	0.1
	30	460	3267	510	99	1
	60	249	1260	230	88	12
	Nicotinic Acid Reduced to 1.5 Gms./day (750 mg. b.i.d.)					
	90	270	1407	400	97	3
G.T.G.	Control	438	3367	860	97	2
	30	422	2867	445	98	2
	60	173	1157	160	81	21
	Nicotinic Acid Reduced to 1.5 Gms./day (750 mg. b.i.d.)					
	90	252	2277	312	97	3
W.E.W.	Control	348	1107			
	30	240	527	254	79	21
	60	145	490	130	77	23
	Nicotinic Acid Reduced to 1.5 Gms./day (750 mg. b.i.d.)					
	90	256	767	256	95	5

tranquilization drugs, promazine, chlorpromazine and reserpine. The period of hospitalization is from 4 to 9 years and adjustment is satisfactory only to the degree that each is on partial privilege. After an indicated control period, 3.0 Gms. of nicotinic acid was administered in the form of 750 mg. per capsule, q.i.d., while on a standard hospital diet throughout the study. The results at the end of 30 and 60 day intervals are seen in Table 1.

The reduction of hypercholesteremia and hyperlipemia was remarkable as reflected by values of total cholesterol, total lipids, phospholipids, and lipoproteins, the latter being partitioned into beta and alpha fractions. No side reactions were noted in this small series of patients. After attaining optimal levels, nicotinic acid was reduced to 1.5 Gms. per day for an additional period of 30 days. This amount of drug failed to maintain previous levels, particularly in two of the individuals.

Conclusion

Control of hypercholesteremia and hyperlipemia in a neuropsychiatric hospital apparently is practical during treatment of psychotic patients employing massive amounts of nicotinic acid.

A CLINICAL TRIAL STUDY OF IMIPRAMINE HYDROCHLORIDE [1]

NINA KATERYNIUK, M.D., AND CHARLES W. MORRIS, M.D.[2]

The present study involved 34 subjects: 18 women and 16 men, treated with the drug for 20 to 130 days (average 58 days). Diagnostic classifications are shown in Table 1.

Ages varied from 20 to 75 years, 31 of these patients had previous hospitalizations. All showed need for treatment. Manifestations of depression differed according to the basic pathology involved, though several common features characterized the total group. Nine patients were severely depressed and suicidal. Subjects' response to previous treatments had been unsatisfactory.

Before the imipramine hydrochloride trial, all medicines other than those given for physical disorders were discontinued.

[1] Geigy Pharmaceuticals, Saw Mill River Road, Ardsley, New York, generously provided the imipramine hydrochloride used in this investigation.

[2] Respectively, Chief of Medical Staff and Clinical Director, Central State Hospital, Lakeland, Ky.

Three patients continued or started on electric shock treatment.

The average initial dose of imipramine hydrochloride, given orally, ranged from 50 to 75 mgs. per day, not exceeding 200 mgs. Duration of treatment was 20 to 130 days, with three-fourths of the patients receiving the drug for a period of 2 months.

All patients were examined immediately before, during and at the end of the observation period. The patient's physician and the nursing staff reported each subject's progress. Behavior, mood, verbal content, sleep patterns and appetite received close attention, the patients being encouraged to discuss their complaints and their emotional status.

Diminution or disappearance of pathological features, especially depression is designated as "improved." Lack of changes in symptoms is described as "unimproved"; and increase or aggravation is classified as "worse."

Twenty-seven (79%) patients improved; seven (21%) remained unimproved; and none became worse (Table 1).

TABLE 1

Diagnosis	*Improved*	*Unimproved*
Psychotic depression	7	2
Neurotic depression	5	0
Involutional depression	1	1
Mental deficiency with psychosis	1	0
Organic brain syndrome	3	1
Paranoid reaction	1	0
Schizophrenic	9	3
Total	27	7

Discussion

It is noteworthy that 3 manic-depressive depressed showed marked improvement after 4 to 6 weeks of treatment. Six patients improved when the drug was given in a combination with EST; 4 others, however, had not improved on EST several weeks before imipramine hydrochloride treatment. Six patients received the drug combined with tranquilizers to amelioriate mild excitement or sleep disturbance.

No allergic manifestations and no side effects other than transient episodes of dizziness, reported by 2 elderly patients, were observed. Temperature, pulse, respiration and blood pressure showed no aberration.

According to the available records, the improvement with imipramine hydrochloride observed in *schizophrenics is less well sustained and fluctuating.* In the majority of improved schizophrenics, imipramine hydrochloride given alone or in combination with tranquillizers replaced to an extent the indication for electric shock treatment. This refers to the schizophrenic "pseudo-depressive" states such as despondency, guilt, suicidal preoccupations, reduced spontaneity, withdrawal, *etc.* In general, schizophrenic subjects showed symptomatic improvement only.

All the patients who failed to improve had earlier failed to improve on conventional treatment methods.

In summary, 27 of 34 patients treated with imipramine hydrochloride showed distinct improvement. "Pure" depression (neurotic or psychotic) abated more readily than depressive symptoms in schizophrenia and brain syndrome.

METHAMINODIAZEPOXIDE (LIBRIUM) IN CHRONIC REFRACTORY ANXIETY

ALFRED H. VOGT, M.D.[1]

In February of 1960, a quantity of methaminodiazepoxide was obtained from Roche Laboratories for the purpose of determining its effect in cases of chronic refractory anxiety. A group of 17 patients (12 women and 5 men) was selected for the study, primarily, on the basis of being chronically "anxious" despite all previous treatment. The average stay in the hospital of these patients was about 2½ years. The average over-all length of illness was 33 months.

[1] Central Louisiana State Hospital, Pineville, La.

Previous treatment ranged from extensive individual psychotherapy, electroshock, and insulin shock to the use of one or more of the tranquillizers in all patients. Diagnostically they were categorized as follows :

Psychoneurosis, Anxiety Reaction	2
Psychoneurosis, Conversion Reaction	2
Psychoneurosis, Obsessive Compulsive Reaction	1
Childhood Schizophrenia	1
Schizophrenic Reaction, Chronic Undifferentiated type	5
Schizophrenic Reaction, Paranoid type	4
Unclassified Psychotic Reaction	1
Manic-Depressive Reaction, Depressed type	1

METHOD

Before treatment all patients were screened. This consisted of termination of previous medication, an evaluation of the physical and mental status, and the assessment of the patient's statements about his or her anxiety. Attendants, nurses, and physicians were asked to render their observations regarding each patient. Dosage schedules were defined so that each patient would receive 25 mgm. of methaminodiazepoxide 4 times a day for one month.

RESULTS

Improvement depended on clear cut observation by the staff that the patient was markedly, moderately, or slightly improved. Marked improvement refers to sustained relief of symptoms of restlessness, complaints of tension, excessive perspiration, inability to concentrate, and preoccupation. The markedly improved patient tended to participate in ward activities and to socialize more with other patients. Moderate improvement refers to the condition where the preceding features were less obvious and less sustained. Slight improvement refers to a selective relief from certain symptoms and little or no change in the patients' observed behavior. The categories of "unchanged" and "made worse" explain themselves. During the study period no patients received ECT. Two patients with severe thinking disorders required thifluoperazine or chlorpromazine to control disturbed behavior. One patient required meprobramate to go to sleep at night. The over-all results at the end of one month were as follows :

Marked Improvement	6
Moderate Improvement	7
Slight Improvement	1
Unchanged	1
Made Worse	2

Those patients who were "made worse" evidenced extremely aggravated behavior and severe thinking disorder after the first week of therapy ; one complained to the nursing staff that the drug "seemed" to increase the symptoms of anxiety. Associated with this was the report that one patient had developed very active sexual preoccupations.

SIDE EFFECTS

Side effects encountered with methaminodiazepoxide were quite common when dosage schedules exceeded 100 mgm., at which time dosage was reduced. The usual reduction was to 50 mgm. per day. Very often side effects were seen when the dosage was again brought up to the 100 mgm. level after being previously reduced.

The following illustrates the nature and frequency of side effects of methaminodiazepoxide when the dosage is held at 100 mgm. per day :

Ataxia	3
Drowsiness	4
Palpitations	2
Intense erotic feelings	1
Dyspepsia	1
Slurring speech	1
Increased appetite	14
Deeper sleep with tendency to fall asleep while sitting in a chair or resting	6

One severely anxious schizophrenic female patient evidenced all of the side effects and was discontinued from the study after the second week. Reduction of the dosage to 50 mgm. per day alleviated the side effects but did not improve the anxiety or the psychosis. One male patient who was making a good adjustment to the drug initially became panicked after an argument with another patient. He was progressively more preoccupied with "killing" this person. He felt that he could not control himself and felt that the drug possibly contributed to his feeling so helpless in the face of his impulses. The drug was withheld, and the preoccupation rapidly disappeared.

Conclusion

Methaminodiazepoxide appears to be quite effective in a wide range of mental disorders where severe anxiety is present. In each instance where there was marked or moderate improvement in the study group, the patient became more sociable, conversant, and noticeably less fearful and preoccupied.

I am grateful to the Roche Laboratories for supplying the drug used in this study, and to the staff of Warren State Hospital for their participation in this effort.

TREATMENT OF SCHIZOPHRENIA WITH PROKETAZINE

JANE E. OLTMAN, M.D., and SAMUEL FRIEDMAN, M.D.[1]

Proketazine,[2] a new phenothiazine compound, is similar in structure to perphenazine, the chlorine radical in perphenazine being replaced by a propanyl radical in proketazine. We have been using proketazine and its earlier analogue for approximately a year. The material for this study consisted entirely of female schizophrenic patients. Initially, a small group of 16 chronically ill patients was treated. These individuals had been ill for many years; their hospitalization ranged in duration from 3 to 31 years, with a median of 19 years. They had been previously, and unsuccessfully, treated with the usual gamut of somatic therapies and a variety of ataractic drugs. Initial dosage for this group was 100 mg. daily. This was increased progressively, by weekly increments of 50 mg., to 450 mg. daily, with a total treatment period of 8 weeks. Results in this group of hard-core schizophrenics were essentially negative. Some degree of mild behavioristic effect was noted in a few individuals, but significant improvement was lacking.

The major portion of the study was devoted to patients newly received on the female admission service. They represented a typical cross-section of schizophrenia. They ranged in age from 14 to 62; however, almost two-thirds were in the 3rd and 4th decades of life. The total duration of illness varied considerably—from a few days to 30 years. The duration of present illness was as follows: under 1 year—48%; 1 to 2 years—21%; over 2 years—31%. Dosage ranged chiefly from 50 to 150 mg. daily, and the treatment period from 4 to 16 weeks. Of this group of 87 patients, 36 (41%) were much improved or in remission; 25 (29%) were improved, and 26 (30%) were essentially unimproved. For comparison, a smaller series of 18 patients treated by placebo therapy during the same period exhibited the following results: much improved, 11%; improved, 22%; and unimproved, 67%. The results with proketazine were generally similar to those obtained with perphenazine in a group of 44 patients treated during the same period.

More detailed analysis of the factors which contributed to successful results indicated that the latter were associated with features which have long been recognized as favorable prognostic criteria in dementia praecox. These are in the area of duration of present illness, type of onset and reaction of the patient, and type of symptomatology. Thus in approximately 80% of drug-treated patients who exhibited an A level of improvement (much improved or in remission) the present illness was less than 1 year in duration, whereas the illness was more than 2 years in duration in 65% of those with unsuccessful result. An A level of improvement was obtained in 72% of patients whose illness was characterized by relatively acute onset and whose reaction might be termed a vigorous one. On the other hand, only 21% of patients with an insidious type of onset, and a passive, constricted, non-vigorous type of reaction attained this level of improvement. With respect to type of symptomatology, some 75% of patients who experienced active delusions or hallucinations, acute feelings of unreality, ideas of reference and projection phenom-

[1] Fairfield State Hospital, Newtown, Conn.

[2] Generous supplies of Proketazine were furnished by Wyeth Laboratories, Philadelphia, Pa.

ena, especially if these were associated with a sense of impending danger or catastrophe, responded with maximal degree of improvement. On the other hand, patients whose thought processes were poorly organized, and characterized by rather diffuse fantasies, feelings of inadequacy or inferiority, vague gropings toward an ill-defined goal and expressions of all-pervading interpersonal difficulties, exhibited generally unrewarding results. In many instances, proketazine appeared to exhibit an almost specific anti-delusional and hallucinatory effect in the acutely ill patient.

Significant complications were absent. Liver function profiles and transaminase levels remained within normal limits. Side-effects consisted chiefly of extrapyramidal features. Parkinsonism appeared in 11 patients, akathisia in 8, and both features in 6, for a total of 29%. As a rule, the Parkinsonism was relatively mild and it was readily controlled by appropriate drugs. Subjectively, akathisia was somewhat more troublesome. One patient exhibited oculogyric crises as part of the Parkinsonism syndrome. Somnolence was relatively mild; it usually disappeared with time.

In conclusion, therefore, it may be stated that proketazine is a satisfactory antipsychotic agent and that it is therapeutically effective in appropriate cases of schizophrenia.

THE VARIATION IN CLINICAL RESPONSE TO MARPLAN[1] WITH DURATION OF ILLNESS

ROBERT R. SCHOPBACH, M.D.[2]

This paper indicates that the effects of hydrazines upon depressions vary with the duration of the illness. A lowered serotonin metabolism in depression is also suggested. The 28 subjects were divided approximately equally between the sexes and between inpatients and outpatients. Each inpatient had a private room in a 24-bed open psychiatric floor of a 1,112-bed general hospital. Six full time psychiatrists and three residents gave close personal supervision and intensive therapy to these patients. All were treated by the author aided by the residents. There is a special occupational therapy unit on the floor and psychologic and social service assistance is constantly available. The average hospital stay is about three weeks. The sight of others recovering and going home enhances the favorable atmosphere for recovery. Thus improvement can never be attributed entirely to any medication and these factors may explain the almost immediate improvement of 3 of this group.

Routinely 30 mg. Marplan per day was given either in one dose or divided to spread the psychologic effect of taking "that new medicine for depression that was described in the magazines." Usually this dose level was continued for 3 weeks, then gradually decreased and, after approximately two months, discontinued. In 2 cases in which the medication was discontinued prematurely or abruptly, the depression reappeared but was again dispelled by the medication.

Of the 28 patients only 6 were suffering from an acute depression, in the others the symptoms had been present for at least a few months and usually were associated with a chronic anxiety state or a long history of other neurotic difficulties. Of these 6 acute depressions 2 cleared within 1-2 days, making it doubtful that the drug was the responsible curative agent. Such responses are recorded as indeterminate. Three of the remaining 4 obtained relief within 3 weeks from Marplan alone. The fourth man demanded that everything possible be done as rapidly as possible; he was therefore given ECT in addition shortly after starting to take Marplan. He improved so markedly after only 2 ECT that he was discharged to continue taking the drug at home where he

[1] Marplan, a benzyl hydrazine, and a grant were generously furnished by Hoffman La Roche Company.

[2] Psychiatric Division, Henry Ford Hospital, Detroit 2, Mich.

continued to improve. This was a definite decrease in the number of ECT required to produce such a response when compared with similar patients not taking hydrazines.

The results in the group of 22 more chronically disturbed depressed patients were less gratifying. Eight did report complete relief and 2 of these even became slightly euphoric but this condition subsided when the dose was reduced. Three continued to have the same general neurotic complaints but were somewhat less despressed. Eight were unaffected by the drug. One of these later improved with imipramine and another with ECT while 6 remained depressed although still ambulatory. Three were classed as indeterminate ; one lost all symptoms almost immediately after admission ; the other 2 had considerable concomitant ECT and psychotherapy so that their improvement could not be attributed to any one factor. Thus, as with all therapies, Marplan is more effective in acute depressions but is still of definite value in those of longer duration. It may also serve to decrease the number of ECT needed.

It had been planned to obtain white blood counts and transaminase tests for liver function before and during drug therapy, but these were obtained in only 19 and 15 patients respectively. No significant alterations were found. The highest and lowest white blood counts during therapy were 9900 and 5350. The normal serum transaminase values are anything less than 30.[3] Pretreatment values ran as high as 24 but during treatment the highest was only 14. There was a definite tendency for these values to decrease slightly during therapy. This may reflect a general improvement in dietary intake and physical well being. There was no clinical evidence of liver disorder among this group. There were some complaints of dryness of the mouth and of dizziness but only slight hypotension was observed and in no case was it necessary to decrease the medication because of these minor side effects.

[3] Reitman, S., and Frankel, S. : Am. J. Clin. Path., 28 : 56, 1957.

INTERFERENCE OF INDICAN IN THE ESTIMATION OF PHENOTHIAZINE

JEROME LEVINE, M.D., DONALD LEVINE, B.A.,[1] AND S. MOUCHLY SMALL, M.D.[2]

Recently several articles concerning the detection of phenothiazine derivatives and their metabolities in the urine have been published(1-7). These tests were designed to offer a simple and immediate check of whether a prescribed dosage of phenothiazine had actually been ingested by a psychiatric patient either in a hospital setting or in private practice.

These tests were performed in our laboratory and a high percentage of false positives was found with many of the tests. Heyman (7) reports approximately 15% false positives with both the Forrest Universal and Forrest Piperazine-linked Phenothiazine Tests. In addition a poor correlation was found in most instances between the amount of phenothiazine ingested and the color produced.

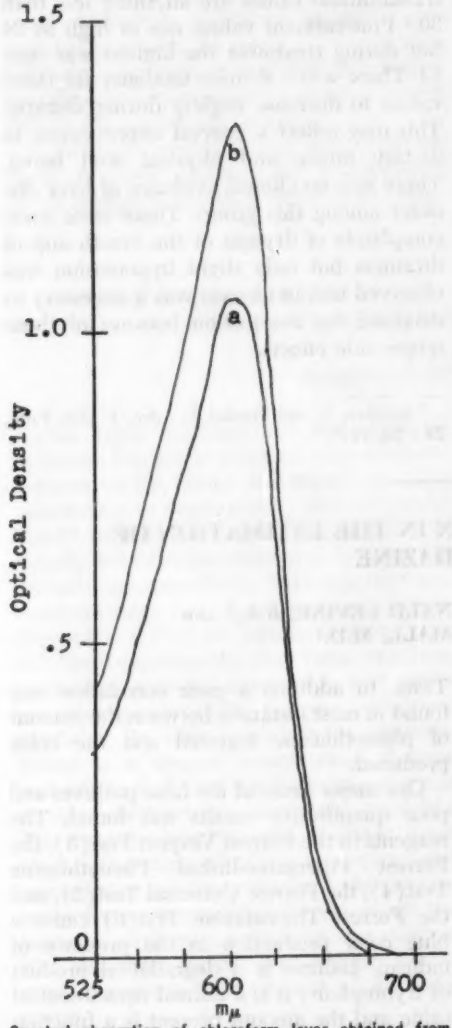
One major cause of the false positives and poor quantitative results was found. The reagents in the Forrest Vesprin Test(3), the Forrest Piperazine-linked Phenothiazine Test(4), the Forrest Universal Test(5), and the Forrest Thioridazine Test(6) cause a blue color production in the presence of indican. Indican is a degradation product of tryptophan ; it is a normal constituent of urine and the amount present is a function of diet, peristaltic activity, intestinal putrefaction and other factors. No color due to the presence of indican was caused by the reagents in the Forrest Chlorpromazine, Promazine and Pacatal Test(1, 2).

[1] Supported in part by National Institute of Mental Health, Summer Fellowship Grant 2M-6004-C4.

[2] From Department of Psychiatry, Edward J. Meyer Memorial Hospital, Buffalo, N. Y.

If the urine contains a significant amount of indican (as shown by the Obermayer Test) and is tested for the presence of phenothiazine, a false positive or an increased amount of color may result.

The fact that the color produced is due to indican was proved in the following manner: Control urines (from persons not receiving phenothiazines) were examined with the tests proposed by Forrest(3-6). Those which gave a color were immediately extracted with chloroform and a sky-blue color appeared in the chloroform layer. The chloroform layer was then analyzed spectrophotometrically. The Obermayer Test was performed on a sample of the same urine and the resulting chloroform layer was also analyzed spectrophotometrically. The absorbtion spectra obtained with a Cary Model 11 Recording Spectrophotometer[3] appear below. Since the curves are so similar it is concluded that the color produced by the phenothiazine tests are due to the presence of indican. In addition, the curves are in agreement with that proposed by Rimington(8) for indican.



Spectral absorption of chloroform layer obtained from (a) Obermayer Test (for indican) (b) Forrest Test(4).

The color production due to indican can be prevented by the addition of a drop of formaldehyde to the urine. Unfortunately, when testing for phenothiazines, the formaldehyde reacts in some way with the urine and test reagents to form an interfering pink color.

A test which eliminates the production of color due to indican is currently being devised. We recommend that the commonly used phenothiazine tests(3-6) be re-evaluated in view of this finding.

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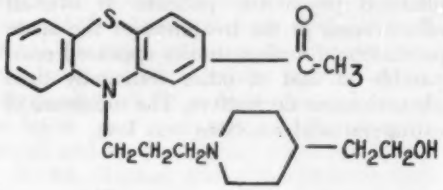
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[3] This instrument was made available by Dr. Max E. Chilcote and used with the assistance of his staff.

CLINICAL EXPERIENCE WITH A NEW PHENOTHIAZINE (PIPERACETAZINE)[1]

K. HAWORTH, M.D., L. M. JONES, M.D., AND W. MANDEL, M.D.[2]

Piperacetazine is a new phenothiazine derivative of the piperidine series (2-Acetyl-10-[3-[4-(B-hydroxyethyl) piperdino]propyl]-phenothiazine) with the following structural formula :



Clinical experience with this drug was gained in observing its effects in 75 recently admitted psychiatric patients, 43 men and 32 women, considered suitable for treatment with phenothiazine medication. The diagnoses were: schizophrenic reactions, 56 (paranoid, 18; catatonic, 12; schizoaffective, 8; undifferentiated, 18), affective reactions, 14, and nonpsychotic reactions, 5. The patients' ages varied between 16 and 67 years, the mean being 32 years. Observations were made only during the patients' stay on an acute treatment ward. Global ratings of marked, moderate, slight, or no improvement in terms of mental status and behavior were made in each patient at the termination of his treatment. A C.B.C., urinalysis, serum bilirubin and serum glutamic pyruvic transaminase were performed prior to the start of drug, at the second and fourth weeks and each month thereafter as long as the patient was receiving piperacetazine. When elevated serum transaminase values occurred, weekly determinations were performed until the values returned to the normal range.

Treatment was started in oral dosages of 5 to 10 mg. b.i.d. or t.i.d. and was progressively increased until improvement or side reactions occurred. The duration of treatment varied from 6 to 165 days, the mean being 67 days for the men, 41 days for the women and 54 days for both sexes. The daily maintenance dose ranged from 15 to 200 mg., the mean daily dose being 90 mg. for the men and 40 mg. for the women.

There was marked improvement in 28 patients, moderate improvement in 19, slight improvement in 4 and no improvement in 19. Five were treated for less than 10 days which was considered too short a time for adequate evaluation; 9 patients in whom the drug was stopped because of side reactions were included in this evaluation.

The number of side reactions totaled 55, 19 patients having 1, 9 having 2, and 6 having 3 reactions. These side effects were reversible in all instances following either reduction in dosage or cessation of piperacetazine or use of antiparkinsonian compounds. Drowsiness and sedation were common with high daily doses (100 to 200 mg.), and disappeared rapidly when the dose was reduced. Dizziness and syncope occurred in 7 patients early in the study when the starting daily dosage averaged 20 to 30 mg. and did not occur later when the starting dosage was 5 to 15 mg. Pitting edema was noted in 9 women. The edema was distributed in the periorbital region in 1, on the face in 2, on the feet in 2, and on the hands and feet in 4 patients. It disappeared with cessation of piperacetazine, recurring in some but not in other patients when the drug was restarted. An erythematous dermatitis distributed over the face and neck was seen in 5 women. This rash was non-pruritic and subsided rapidly when the drug was stopped, recurring in some patients and not in others when treatment was reinstituted. The edema and dermatitis coexisted in 3 patients.

Akathisia was noted in 1 man and 2 women. The parkinsonian reaction was observed in 3 men who were on high daily doses (200 mg.) of piperacetazine and who

[1] Supplied as Quide by Pitman-Moore Company, Indianapolis, Ind.

[2] Respectively, Resident Psychiatrist, Staff Psychiatrist and Chief of Research; Napa State Hospital, Imola, Calif.

had been treated for at least 60 days. These extrapyramidal reactions responded rapidly to treatment with antiparkinsonian compounds or to reduction in dosage of piperacetazine. No significant alterations of the laboratory studies occurred in any patient.

In common with other phenothiazine derivatives, piperacetazine was more effective in the hostile, aggressive, hyperactive, anxious and tense than in the regressed, withdrawn or apathetic patient. In addition to its allaying of psychomotor agitation, it reduced such psychotic manifestations as hallucinatory experiences and delusional thinking. The satisfactory daily maintenance dosage ranged from 30 to 100 mg.; daily doses above 150 mg. increased the incidence of side reactions, particularly drowsiness and sedation, without noticeably increasing the therapeutic effectiveness. No serious side reactions were encountered and the incidence of extrapyramidal reactions was low.

SUMMARY

Piperacetazine, a new phenothiazine derivative of the piperidine series, was clinically evaluated in 75 recently admitted hospitalized psychiatric patients. It over-all effectiveness in the treatment of the acute psychiatric disorders studies appeared comparable to that of other commonly used phenothiazine derivatives. The incidence of extrapyramidal reactions was low.

WILLIAM RUSH DUNTON, JR.
PIONEER IN REHABILITATION MEDICINE.
A Canadian Tribute

HELEN P. LE VESCONTE, O.T.R.[1]

On July 24, 1960, William Rush Dunton, Jr., M.D., celebrated his ninety-second birthday. To him occupational therapists the world over owe much. In the May-June issue of the *American Journal of Occupational Therapy*, members of that Association have paid their tribute to Dr. Dunton whom many of them have been privileged to know as a wise counsellor, a stuanch friend and an outstanding physician.

To Dr. Dunton, one of the founders and first president of the National Society for the Promotion of Occupational Therapy, (now the American Occupational Therapy Association) ; founder and for over 20 years editor of the *Archives of Occupational Therapy* (later known as *Occupational Therapy & Rehabilitation*, and since 1947 the *American Journal of Occupational Therapy*) ; author of the first text books on this subject, Canadian occupational therapists may also pay their tribute.

Many Canadian therapists who have not known Dr. Dunton personally, have known him through his writings, for until 1947 when Willard & Spackman published *Principles & Practices of Occupational Therapy*, Dr. Dunton's book *Prescribing Occupational Therapy*, first published in 1928, was the only general text book on the subject used on this continent.

Prior to the writing of this book he had published two text books, *Occupation Therapy* (1915), and *Reconstruction Therapy* in 1919. It was not until 1917 that the term "occupational therapy" was officially adopted, and the older term "reconstruction therapy" continued in use for some years, particularly in the military hospitals of both the United States and of Canada. It is interesting to note that *Prescribing Occupational Therapy* was written as a guide to general physicians. "It has been felt," the author writes in his Foreword, "by those interested in the promotion of occupational therapy that a more general use of this form of treatment would not be attained until physicians are taught more concerning it and until they know how properly to prescribe its use." Part 1 of this book outlines the general philosophy, principles and the prescription ; Part 2 describes the specific application in medical and surgical conditions, orthopedics, tuberculosis, mental disorders, cardiac conditions and pediatrics.

Dr. Dunton's concept and vision of occupational therapy and his concern for the development of professional training and practice were not limited by geographical boundaries. Nor was his chief concern its application in the field of mental disorders in which he has had a long and distinguished career. Of his great contribution in this special field there is no need to write here. It is in the wider field of physical disability that his contribution has been of special importance. His keen appreciation of what total rehabilitation involves, his knowledge of what pioneering physicians, therapists, psychologists and vocational counsellors were doing and thinking, the accurate dissemination of this knowledge through his books and the professional journals—these were the significant things.

Around 1915 there was a keen awareness in both Canada and the United States of the potentials of rehabilitation. In *Reconstruction Therapy* for example, several references are made to the "remarkable work" done by the Canadian Military Hospitals Commission, under the direction of Mr. T. B. Kidner of Alberta, in the development of vocational rehabilitation. Dr. Dunton had become deeply interested in the work of Dr. Herbert Hall, who even prior to 1915 published a number of articles on the problems of the tuberculous patient, particularly in the area of vocational rehabilitation. In these articles and studies Dr. Hall constantly stressed the importance

[1] Division of Rehabilitation Medicine, Faculty of Medicine, University of Toronto, Ont.

of work conditioning and pre-vocational assessment. Both in his books and in the early issues of the *Archives of Occupational Therapy*, Dr. Dunton also drew attention to the work of Frank B. and Lillian Gilbreth on energy conservation and the effects in industry of reduction of fatigue in workers by the elimination of useless motions. These studies were based on observations, made through motion pictures, of the actions of different workers doing the same type of work. Dr. Dunton immediately saw the significance of the Gilbreths' work to the occupational therapist. He emphasized the therapist's need to know the "feel of the tool," and how it is used, and to analyze these features in detail. He stressed the importance of ingenuity in adapting the apparatus used to restore particular movements; that substitution of good muscle must be guarded against in treatment; and that always in treatment the "method of work is more important than the work itself."

For the individual handicapped by loss of a limb, Dr. Dunton recognized the fundamental importance of what today, we term "activities of daily living," when he pointed out that the first need was the formation of habits compensating for the loss; 1—toilet, dressing and washing; 2—feeding oneself easily and comfortably; 3—if necessary, re-education in movements to aid in one's vocation, or to a new one to which he is better suited, by means of pre-vocational training. In *Reconstruction Therapy* he devoted a chapter to the work of Dr. Jules Amar of France, in the development of more functionally useful prostheses. This chapter contains some 20 photographs of terminal devices to facilitate carrying out of self-help activities and for various types of work. These devices are remarkably similar to those used today in the prosthetic training of the industrial accident patient. This chapter also includes an interesting section on the methods and devices developed by Judge Quentin Corley of Dallas, Texas. In 1905 Mr. Corley was severely injured and as a result lost his right arm, scapula and clavicle and also his left hand. Through his own ingenuity he evolved a device which enabled him to carry out all acts of self-help, *e.g.*, to write, fold and place a letter in an envelope, pick up large and small objects, drive a car, swim, dive and bowl.

As founder and editor of *Occupational Therapy & Rehabilitation*, Dr. Dunton set a standard of professional journals which is impressive both in the quality of the material and the variety, and which he consistently maintained. The first volume was published in 1922 in 6 bi-monthly issues, and in the first two volumes are found articles on 26 subjects which include, in addition to those dealing with medical, surgical, orthopedic and mental disorders, home service and disabled homemaker training, industrial accidents, pre-vocational and vocational training, sheltered employment, music, drama, and recreation as therapeutic media, training of personnel, administration and organization, records, research, the relationship of the occupational therapist to the visiting nurse, the social worker, and in the community and general walfare problems. Constantly there is emphasis on the importance of vocational rehabilitation and the use of activities which provide new channels of economic value for patients who require partial or complete re-education.

One need scan only briefly the writings of Dr. Dunton, to see how clearly he had envisaged and identified the total rehabilitation concept, and the place and contribution of occupational therapy throughout treatment, in the development of orthetic devices and self-help training, in prosthetic training, in pre-vocational assessment, and long range planning for the patient.

William Rush Dunton is indeed one of the important pioneers in the teaching, preaching and practice of rehabilitation medicine. As a mouthpiece of physicians, occupational therapists and above all their patients, he has left a record of the development of these areas which today is a "favoured child" of physical and mental rehabilitation. More truly we should say the *foster* child, for when it was conceived history does not record. But over 40 years ago Dr. Dunton had recognized it as one of the great challenges and responsibilities for those who truly seek to serve the sick and disabled.

COMMENTS

CHILD PSYCHIATRY IN JAPAN

Child psychiatry has made rapid advances in Japan in the past few years. These have culminated in a series of events which indicate vigorous activity and promise of major contributions. In January 1960, the first issue of a quarterly, the *Japanese Journal of Child Psychiatry*, was published; the editorial board is made up of not fewer than 65 members. At the invitation of the editors, Leo Kanner contributed a Note of Welcome. The papers are, of course, written in Japanese but to each article an English abstract is appended. The table of contents of the first issue may serve as an illustration of the range of interests and research topics: Perspective of Child Psychiatry in Japan; A Psychopathological Study of Daydreaming in Early Child Schizophrenia; Case Report of Childhood Schizophrenia, with a discussion of its genesis and classification; A Study of Obsessive-Compulsive Phenomena in Childhood; Psychic Symptoms, especially the Autistic Tendency, of Mentally Retarded Children; Mechanisms and Factors Contributing to the Formation of Childhood Mutism; The Development of Language in Infants. Two additional issues have appeared to date. The second is devoted largely to various aspects of mental deficiency; the third, besides a number of articles on drug treatment, play therapy, genetic factors, stuttering, and schizophrenia, contains a symposium on experiences in the management of psychiatric clinics for children. The papers are of high caliber and would do honor to an American journal of child psychiatry—if we had one. Most of them come from psychiatric departments connected with (11) medical schools, a few from departments of education and of psychology, several from the National Institute of Mental Health, and one each from departments of obstetrics and pediatrics, and two from the Institute for Physical and Mental Health of Mothers and Children. Every one of the three issues contains abstracts of selected articles from the literature in other countries.

During 1960, also, Drs. Makita (who has had his training in child psychiatry at the Johns Hopkins Hospital) and Kuromaru have completed the Japanese translation of Kanner's *Child Psychiatry*.

It was felt for some time that the growing interest and the increasing number of workers in the field called for an opportunity for nation-wide collaboration. This was done in a number of annual meetings, the last (third) held early this year at Kurume Medical College under the chairmanship of Prof. Kuromaru. However, as the next important step, the leading men in Japan are now in the process of organizing the Japanese Association of Child Psychiatry at a meeting in Tokyo on November 17 and 18, 1960, under the aegis of Professors Kuromaru, Makita, Takagi, and others. This official act brings our Japanese colleagues definitely into the international family of child psychiatrists. Needless to say that they are assured of a cordial welcome.

L.K.

BELIEF

There's no belief so settled as not to be exposed to further inquiry.

—JOHN DEWEY

CORRESPONDENCE

PSYCHIATRISTS IN CORRECTIONAL INSTITUTIONS

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY :

SIR : In the September 1960 *Journal,* pp. 272-273, I note the comments about Dr. Warren S. Wille's article on "Psychiatric Facilities in Prisons . . . ," which appeared in the December 1957 issue. James A. McCafferty states that "the only previous survey was done by Dr. Winfred Overholser in 1926," which indicates that the literature was not adequately covered.

In 1932, while I was Director of Classification for the New York State Department of Correction at the Elmira Reformatory, the Salmon Memorial Committee of the New York Academy of Medicine gave me a grant to carry out a study of psychiatric work in prisons throughout the United States, towards the possibility of preparing a textbook on the "Classification of Prisoners." A survey was carried out on every prison in the United States, and the textbook was written. Also the results were summarized in a paper presented before the New York Academy of Medicine on December 12, 1933 and were published in the *American Journal of Orthopsychiatry,* April 1934.

Unfortunately, psychiatric work in prisons since that time has been more or less at a standstill.

James L. McCartney, M.D., LF APA,
Garden City, N. Y.

REPLY TO THE FOREGOING

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY :

SIR : Dr. McCartney appears to have quoted a part of a sentence in my letter that should be attributed to Dr. Wille's paper, namely : "The study by Dr. Wille indicates that his project covered the year 1954 and that *the only previous survey was done by Dr. Winfred Overholser in 1926!*" Dr. McCartney gives me undue credit for the underlined portion of the statement. This infers that I overlooked other literature on the subject of psychiatric personnel in correctional institutions.

My letter was not aimed at providing a list of prior surveys but merely to indicate that national statistics on psychiatric personnel in correctional work have been available for many years in the National Prisoner Statistics series published by the Bureau of Prisons.

Incidentally, besides Dr. McCartney's material, and doubtless many other references, Dr. Norman Neiburg, Director, Division of Psychological Research and Legal Medicine, 33 Broad Street, Boston, Massachusetts recently completed an inventory on psychiatric, psychological and psychiatric social worker personnel employed in State and Federal correctional institutions.

In this discussion perhaps we have overlooked an essential point, the need for more psychiatrists in corrections. Perhaps our combined efforts will attract some of your readers to this important endeavor.

James A. McCafferty, Criminologist,
Research and Statistics Branch,
United States Department of Justice.

DIAGNOSES ON INSURANCE PAPERS

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY :

SIR : During the past few years there has been a marked trend towards the inclusion of psychiatric treatment under medical and hospital insurance policies. This has been a most welcome development, but it has not been without its problems.

One of the difficulties that frequently arises is that the completed insurance form has to pass through the place of employment of the patient and either has to be

filled in by the employer or must be forwarded by them to the main office of the company. Additionally, many forms have to be given directly to the patient.

Under these conditions, it is most difficult to keep the nature of the patient's illness confidential. Certain diagnoses would tend to spread alarm among the patient's business associates and might even endanger his job security.

A solution suggested to me by a colleague, Dr. William F. Gibbs, overcomes this problem in a simple, straightforward way. Instead of writing in the diagnosis of the patient's psychiatric condition, the official code number of the illness is substituted. This has worked extremely well. On a few occasions, an insurance company has contacted me for clarification, but otherwise, there have been no problems associated with this solution.

Perhaps other psychiatrists would wish to adopt this simple measure as a more or less standard procedure for the completion of insurance forms.

Michael J. Keith, M.D.,
Norfolk, Va.

IS PSYCHOTHERAPY A SCIENCE ?

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY :

SIR : The stimulus to write these lines came from a book *Psychotherapists in Action.* I had to write a review of this book for *Psychiatria et Neurologia,* and am not going to review it here. The author, Hans H. Strupp, is anxious to emphasize the difference between the research psychologist and the psychotherapist. He is a research psychologist.

This is not the first and probably not the last attempt to turn psychotherapy into a science. Many persons seem still to harbor the idea that psychotherapy would be "really respectable" if it were a science. It is understandable, yet not logical, that a psychologist who considers his work as research on psychotherapy, essays an approach through the use of scientific methods. The absurd implication might be made that any field of knowledge and/or practice could be "scientified" by the sheer application of scientific methods. It is almost embarrassing to remind our colleagues of this fact : it is not the methodology which "makes" a discipline a science ; it is the approachability of the field concerned which is at the root of this qualification.

Psychotherapeutic practice is basically *support* of one person by another—that is, in general, of a patient by a psychotherapist. This support demands confidence and respect on both sides. Support, confidence, respect and other subtleties make the "interaction" possible—none of them is measurable. Strupp appears to comprehend this, for he writes : "In order to expand scientific knowledge of the therapeutic process, it is necessary to objectify essentially subjective experiences, but as one succeeds in doing so, one runs the danger of sacrificing the essence of what one is studying."

Nevertheless he used his scientific methods, and he still seems to hope to do better in the future, heroically essaying to overcome his unmistakable and not inconsiderable frustration which, incidentally, is also not measurable.

We have been doing psychotherapy in our professional life as well as we could. We realize its indispensability. This realization is one of the reasons for which we cannot remain mute with respect to all the claims made concerning psychotherapy. We, the psychiatrists, have to plead guilty as regards the development psychotherapy was allowed to take in theory and practice.

Since we consider support the core of any psychotherapy, we might be suspected of holding that everybody can learn and teach it well enough through some good drilling and training. This is not our opinion. We are, indeed, convinced that the ability to teach and the ability to learn psychotherapy are quite limited. Regardless of all the discussions on learning psychotherapy and regardless of the increasing number of places where training is being offered, one point ought not to be forgotten. There is something in psychotherapy that cannot be either taught or learned. Sir William Osler had "it"

without ever going through any psychotherapeutic school. Call it intuition or fingertips or what else you want, this "it" is on the same level as the creative gift of the artist—the gift which distinguishes the artist from the dilettante and the amateur. Some call it the divine spark—why not ?

If one remembers this, one cannot but be sadly amused about the endeavor to get hold scientifically of "interaction"—rewriting practically the volumes about it that only recently have been studied on the subject of transference. Perhaps the time will come when all this will be moderately well understood, though not scientifically analysed, under the modest label of rapport.

Eugen Kahn, M.D.,
Houston, Texas.

REVISED SURVEY OF SELECTED PSYCHOPHARMACOLOGICAL AGENTS

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY :

SIR : In the November, 1960 edition of the *Journal,* Cattell and Malitz have a review of the "Revised Survey of Selected Psychopharmacological Agents." They include a statement concerning prochlorperazine (Compazine SKF). They report that there have been no instances of jaundice with this drug. This is not the case. I have seen 2 patients who have had marked jaundice associated with the administration of Compazine. In both instances the jaundice was self limited and cleared after the removal of the drug. In one patient the jaundice appeared on the seventh day of treatment. In the other patient it did not appear until 2 months following the onset of Compazine therapy. In both instances there could be no confusion as to the etiology, for the patients were on no other medication and careful clinical and laboratory studies were not indicative of other etiologic sources.

From a laboratory standpoint, one of the patients showed the following : Serum bilirubin, 5.3 mg.%, 4+ bile in urine, serum protein partition studies reveal no abnormalities, Serum alkaline phosphatase, 15K.A. units, cephalin flocculation and thymol turbidity negative. Prothrombin 17 seconds (normal 14). Other blood studies were in a normal range.

I would like to record this information to avoid any confusion in the minds of your readers.

Stanley Lesse, M.D.,
Neurological Institute of New York,
New York 32, N. Y.

OFFICIAL REPORTS

REPORT OF THE COORDINATING COMMITTEE ON PROFESSIONAL STANDARDS IN PSYCHIATRY

1. The first committee of this group is the Committee in Liaison with the American Academy of General Practice, which has functioned under the chairmanship of Dr. Robert Matthews. This committee has been working jointly with the Mental Health Committee of the American Academy of General Practice and has maintained both formal and informal communication with members of that committee throughout the year. There is a General Practitioner Education Project in the office of the Medical Director of the American Psychiatric Association with a director, Dr. William F. Sheeley. Dr. Sheeley and the committee have worked closely together.

The committee has used all channels of communication available to it including articles in the journal *Mental Hospitals* and the *APA Mailpouch*. It is exploring the use of State Hospitals as a locale for courses in psychiatry for general practitioners. It has worked closely with the out-going Speaker of the Assembly of District Branches and has made use of the communications machinery which he has set up.

It is gratifying to report that there is a high degree of interest in the Academy of General Practice in the problem of postgraduate psychiatric education for general practitioners. It is, however, distressing to report that this interest is considerably higher in the AAGP than in the APA. The Committee sees a need to point out to the members of the APA that they have a responsibility to undertake joint teaching activities with local units of the AAGP; assures them that they will derive much personal satisfaction and professional advantage from such relationships; and hopes that they will make every effort to correct this discrepancy of interest.

2. The Committee in Liaison with the American Hospital Association has operated under the chairmanship of Dr. Raymond Waggoner. This Committee has been extremely active. There have been two meetings jointly with the corresponding Committee of the AHA since our own Committee meetings in Detroit last fall. The Committee has completed its work on the brochure "Psychiatric Units in General Hospitals" which is to be published by the AHA after approval by the Council of the APA. The brochure is being presented to the Council on Thursday for its approval.

The Committee has also been concerned with the growing development and expansion of psychiatric units in general hospitals and with potential difficulties which may come up in relation to involuntary detention in locked facilities in such units. It has a resolution pertaining to such detentions and proposes to present this to the Council for action and approval.

3. The Committee on Mental Hospitals. This Committee has been chaired by Dr. Joseph E. Barrett. It has been concerned in the past year, as it has in previous years, with the problems which confront the mental hospital at this moment in a changing culture in relation to mental hospitals. The Committee was somewhat critically concerned with a brochure on general principles and guides for psychiatric units in general hospitals prepared by the office of the Medical Director and has worked with him to produce modification of this in a direction more satisfactory to everybody concerned. It has continued to deal with the many problems that confront the mental hospitals of the nation.

4. The Committee on Nomenclature and Statistics is another of our hard-working Committees which operates under the chairmanship of Dr. Moses Frohlich. It has held several meetings in addition to the usual fall meeting held by most of our committees. This Committee has just now completed revision of the classification and nomenclature for the 1960 edition of the A.M.A. "Standard Nomenclature of Diseases and Operations." It will be of interest to the members of the Association that al-

though a great deal of work has been done by the Committee, and a thorough review made, the revisions proved necessary were found to be relatively minor in degree and few in number.

The Committee has come also, during this year, close to completion of the revision of the Diagnostic and Statistical Manual published by the APA. There has been an attempt to sharpen the objective criteria for classifying and to improve uniformity in the use of the classifications.

The third major project of the Committee has been to work on the preparation of a manual on "The Gathering and Use of Data in Psychiatric Facilities" but this has been largely in abeyance due to the pressure of revision of the "classification." Further work will need to be done on this and it is hoped that this can be completed soon.

5. The Committee on Private Practice, under the chairmanship of Dr. John Cotton, has continued its extremely important and interesting work. It has been concerned in the last several years with the question of health insurance for psychiatric illness. It is gratifying to report that there seems to be now a definite trend throughout the country to include psychiatric care in hospitalization insurance. This has been in part due to the increasing number of psychiatric services in general hospitals. There are now almost 1000 such units and many more planned and it appears to the Committee that this is the most important development in the past 15 years to concern the private practice of psychiatry. The Committee continues with its plans to make a study of the variety of services offered by general hospital psychiatric units, and hopes to obtain funds from private sources to finance such a study.

6. The Committee on Psychiatric Nursing has been headed by Dr. Granville Jones. This Committee has worked with equivalent groups from the Nursing Organizations and has continued to seek more exact definitions and more comprehensive ideas of psychiatric nursing and the function of the psychiatric nurse. As you are well aware, the role of this particular one of our professional colleagues is currently undergoing changes, and the Committee hopes to continue to explore what these role changes are and how to clarify them. There is some thought that a general conference on this topic might be helpful.

This Committee recognizes that it deals with only one of the many disciplines involved in patient care but because the National League for Nursing and the American Nurses Association have suggested it, this Committee is prepared to urge that the APA call a multi-disciplinary conference to explore means of improving total patient care with particular emphasis on in-service education.

Under the general aegis of your Committee the seminar project for teachers of psychiatric aides was set up. This project is now approaching completion. The seminars have all been held and the director and the psychological consultant are analyzing the results preparatory to writing a full report. Your Committee believes that this has been a most successful venture and trusts that the report will be a real contribution to the literature on aide education.

7. The Committee on Psychiatric Social Work has been extremely active. Dr. Maurice Friend as chairman has stimulated his Committee into many fields of activity. The Committee has kept close contact with various individuals and consultants from the National Association of Social Workers, Psychiatric Section, and has made use of the *Social Workers Newsletter* for communication. It has also been in contact with our own District Branches.

The Committee on Psychiatric Social Work is aware of the proposal reported immediately above for a conference on patient care and expresses its interest in participating in such a conference.

At several places, sub-committees on psychiatric social work are working closely with the parent Committee. The parent Committee is watching also with interest and helping in any way it can in certain special studies being carried out by local sections of the National Association of Social Workers.

Finally, but not least, the Committee has been very much concerned with the problem of recruitment of personnel into the social work field.

8. Your Committee on Psychiatry and the Law (you will note the change of name

which was authorized last year) has been chaired by Dr. Louis Gendreau. This Committee has been for some time concerned with the problem of privilege in the relationship between psychiatrist and patient, with commitment laws and their uniformity and with other matters that involve the many intriguing inter-relationships between psychiatry and the law. While it has not been able to make many very specific recommendations, it feels it is having an effect on many of these matters in many states and is pleased to report that at least one state has now adopted a statute which gives privilege to the relationship between a psychiatrist and his patient in therapy.

9. One of the most important committees of your association in view of the present cultural and social situation is that on Relations with Psychology. Dr. Joel S. Handler, taking over this Committee only a year ago, has done a great deal to ease some of the difficulties between us and our colleagues of the other APA. Meetings have been re-established with the other group after a break in communication of two years. A statement has been prepared, approved by Council and published in the *Journal* of the APA. Discussions will continue of such basic issues as medical responsibility for the welfare of the patient, the question of the independent practice of psychotherapy by the psychologist and the matter of local liaison between District Branches of our APA with their opposite numbers in the State Psychological Societies.

The Committee feels very strongly that legislation is not the answer to any of the problems of either of the APAs. It feels rather that there must be continuous free communication and discussion, so that there can result a final implementation, by a continuous process of joint responsibility, of training in the ethical problems involved in the relationship of the two professional disciplines at local levels. The Committee believes that some of the chill which was developing between the two disciplines has been dispelled by its activities. Dr. Felix, our incoming president, has been most interested in this problem, and has worked with the Chairman of the Committee and with the full Committee on several occasions in an attempt to solve the complex problems which have come up.

10. The Committee on Standards and Policies of Hospitals and Clinics, has been chaired in the past year by Dr. T. Stewart Ginsberg. This Committee has worked in two basic fields : hospitals and clinics. At the same time, however, it has recognized many recent changes in the situation and the need for a complete re-evaluation of the whole matter of Standards and Policies for both hospitals and clinics. It has prepared a proposal for a long and detailed study of the matter with conferences and exchange of ideas and is in process of seeking support for such a project which it is hopeful it will obtain in the near future.

11. One Ad Hoc Committee, that on An Organization for Mental Hospital Personnel, under the chairmanship of Dr. Marion Kenworthy, has also reported to this Coordinating Committee. The problems involved have been discussed at a number of meetings and recommendations made to the Council. The basic recommendation has been that such a group be tried out on a pilot basis at a local level, in relation to a Divisional Meeting, and it is hoped that implementation of this recommendation will soon occur.

In such a brief period today it is difficult to give you more than a suggestion of the amount of work and thought that has gone into the Committee activities in the past year. Since this marks the termination of my assignment as Coordinating Chairman of this group of Committees, I should like to take this opportunity to thank all of the Chairmen and Committee members who have made, in the past several years, my job so much easier than it might have been. I should like to thank the Medical Director and his Staff and the Executive Assistant and his Staff for invaluable assistance. The officers of the Association, over the several years, have had a clear understanding of what committee work and coordinating committee work ought to be and, of course, it has been possible to work collaboratively and cooperatively with all of them. The Coordinating Chairmen of the other two groups have been, and I hope will continue to be, my friends as well as my collaborators in this total committee effort.

Because I am now leaving this position, I should like to take the opportunity to say to you how important and how useful I think this technique of the establishment of coordinating committees has been for the work of the Association. You will recall that it was in the presidency of Dr. John Whitehorn that these Coordinating Committees were set up, on the basis of a recommendation made by the Committee on Committees, which studied the whole matter under the chairmanship of Dr. Robert H. Felix. After years of experience with this I simply wish to take the chance to say that I believe this was a brilliant concept that has worked extremely successfully for the benefit of the over-all work of the APA.

Wilfred Bloomberg, M.D.,
Chairman.

AS YOU LIKE IT

It is honor enough to be read and studied, even if only to be combatted ; and I send my critics back to their respective camps with my blessing, hoping that the world may prove staunch and beautiful to them, pictured in their own terms.

—SANTAYANA

WHAT LIVES ON

Immortality is a word that Hope through all the ages has been whispering to Love. The miracle of thought we cannot understand. The mystery of life and death we cannot comprehend. This chaos called world has never been explained. The golden bridge of life from gloom emerges, and on shadow rests. Beyond this we do not know—Fate is speechless, destiny is dumb, and the secret of the future has never yet been told. We love ; we wait ; we hope. The more we love, the more we fear—upon the tenderest heart the deepest shadows fall. All paths, whether filled with thorns of flowers, end here. Here success and failure are the same. The rag of wretchedness and the purple robe of power, all differences and distinction, lose in this democracy of death. Character survives ; goodness lives ; love is immortal.

—ROBERT G. INGERSOLL

NEWS AND NOTES

Training in Psychiatry for Practitioners of Medicine.—Philadelphia General Hospital has been approved by the National Institutes of Health, U. S. Department of Health, Education and Welfare for an annual grant for graduate training in psychiatry.

The grant allows for training general practitioners or other physicians in psychiatry, and is for a maximum $12,000 a year. Interested physicians make dual application to both PGH and NIH.

Dr. James R. Harris, chief of psychiatry at PGH states that the NIH set up this type of grant to train practising physicians who wish to go into psychiatry, but cannot afford to make the change without compensation other than regular residency salary.

Conference on Neuropsychopharmacology.—This conference was held in New York City on November 12 and 13, 1960. Clinical psychiatrists, educators, researchers in basic sciences as well as clinical investigators participated. The Chairman of the conference was Paul H. Hoch, M.D., N. Y. State Commissioner of Mental Hygiene.

Among the recommendations was that a new society be formed, with the purpose of advancing knowledge in this important area of psychiatric research. An organizing committee was appointed, with Dr. Theodore Rothman of the University of Southern California School of Medicine as Chairman.

It is probable that the new society will be organized in time for the May meeting of the American Psychiatric Association.

Panel Discussion of "Distorted Communication."—This symptom in the psychoneurotic will be the subject of a panel discussion under the auspices of the Association for the Advancement of Psychoanalysis on Wednesday evening, February 15, 1961, 8:30 p.m. at the New York Academy of Medicine, 2 E. 103rd. St., New York City.

The speakers are Dr. Dominick A. Barbara, Dr. Martin Symonds, Dr. Robert L. Sharoff, Dr. Joost A. Meerloo, Dr. Jack L. Rubins, Secretary of the Association will be the Panel Moderator.

Teaching Behavioural Sciences at Albany Medical College.—An undergraduate teaching program in behavioural sciences has been established at the Albany Medical College of Union University as a subdepartment of the college's department of psychiatry. Dr. Frederick D. McCandless, associate professor of psychiatry and former head of Albany Hospital's psychiatric outpatient clinic heads the new sub-department.

The course will be presented to students during their first 2 years of medical training, beginning September, 1961. Its purpose will be to integrate and expand teaching in such subjects as psychology, sociology and anthropology, especially in their application to the understanding of health problems; and thus enable future physicians to consider more fully the psychologic and sociologic aspects of their patients' illnesses.

Eastern Psychiatric Research Association.—This Association will hold its 25th Scientific Meeting on Thursday, February 2, 1961 at 8:00 p.m. at the New York University Medical School, 30th St. and 1st Ave.

The speakers will be Anthony Sainz, M.D., Marcy, N. Y., Theodore R. Robie, East Orange, N. J., and William L. Holt, Jr., Albany, N. Y.

IV Reunion Anual de la Sociedad de Neurocirugia de Chile.—This Conference will take place on June 2 and 3, 1961, at Santiago, Chile under the presidency of Dr. Carlos Villivicencio.

The subject of the Conference will be "Tuberculosis of the Central Nervous System." All aspects of tuberculosis of the central organs in children and adults, including atypical forms and sequalae will be discussed by an outstanding group of speakers.

BOOK REVIEWS

The Central Nervous System and Behavior. Transactions of the second conference, February 22, 23, 24 and 25, 1959. Edited by *Mary A. B. Brazier.* (New York : The Josiah Macy, Jr. Foundation. $4.75.)

This volume is an excellent example of the product of a multi-disciplinary approach to a most complex subject. The limbic system constitutes the major consideration in this text.

Dr. Paul D. MacLean (National Institutes of Mental Health, Bethesda, Maryland) is responsible for the chapter relating the function of the limbic system to self-preservation, and preservation of the species. Dr. Endre Grastyan (University of Pécs, Pécs, Hungary) is responsible for the chapter on the hippocampus and higher nervous activity, and in approximately 80 pages, he discusses the part played by this portion of the central nervous system in conditioning mechanisms, memory and learning. The subject of "temporary connections" receives a thorough consideration. It would appear the conference suggested the functions of the limbic system involved preservation of the individual, preservation of the species, programming of activities and relating present activity to experience.

It might be of interest to those of us who have been primarily interested in the reticular system of the brain that in discussing the limbic system in this volume, a suggestion was made that the reticular system might be included as part of the "limbic" system.

Dr. Jan Bures (Academy of Sciences, Prague, Czechoslovakia) is responsible for the chapter on reversible decortication and behavior. In this chapter, "functional" as well as anatomical decortication is discussed, and the conditional reflex, depression and inhibition are considered.

Vladimir S. Rusinov (Academy of Sciences, Moscow, USSR) is responsible for the chapter on EEG studies in conditional reflex formation in man. Here again "temporary connections" and their site is a subject thoroughly considered, including the role of the cortex, subcortex, reticular formation, limbic system, thalamus, *etc.*, in this function.

Dr. Brazier contributed the last chapter, reporting her impressions of the Colloquium on EEG and Higher Nervous Activity held in Moscow, USSR, October 6 to 11, 1958, in which Dr. Brazier covers the transactions by brief notes and adds her interesting descriptions of the various Russian cities and institutes she visited in connection with this Colloquium.

This volume adds another significant building block to our knowledge of the relationship of behavior to central nervous system function. For those interested in this subject, this volume provides a wealth of information and stimulation. It will serve as another basic reference text in this field of investigation.

Lorne D. Proctor, M.D.,
Detroit, Mich.

Epidemiological Methods in the Study of Mental Disorders. By *D. D. Reid.* Public Health Papers 2. (Geneva, Switzerland : World Health Organization, 1960, pp. 79. $1.00.)

Research in psychiatry has much to be thankful for to Dr. Reid for presenting this brief map of the concepts and techniques of epidemiology and its applications in the field of the mental illnesses. There are few ideas necessary for the design of productive studies which are not put forward here. The bibliography is highly selected to offer the reader more information on particular techniques or examples of the points made, thus avoiding loading the text with more than absolute essentials.

One of the useful chapters deals with the definition of the often misused terms, incidence and prevalence and with the variations in their meaning introduced by one or another adjective —"point," "period," "all-life," *etc.*, adjectives too often left out when actually needed for true comprehension of the author's meaning. The basic considerations of population at risk and the opportunities and pitfalls of age standardization are well explained.

The book appropriately gives a great deal of attention to two highly critical points in all psychiatric epidemiology, the matter of sample selection and the problem of the selection of controls. The technique of cohort studies over relatively long periods is gone into rather thoroughly, together with the difficulties of the method.

Reid makes it very clear that the fundamental problem in the epidemiology of mental health and diseases lies in the old question, "What is a case?" It is unfortunate that the Leighton and Rennie studies were not available for consideration in relation to this issue —as well as others, throughout the book.

The World Health Organization, to which Dr. Reid was consultant for this study, published the volume. It represents another unit in what has thus far been a series of excellent publications in the field of psychiatry and mental health. This volume should be on the reference shelf of every experienced worker and on the desk and at hand for every beginner in the field.

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THE SILENT LANGUAGE. By *Edward T. Hall.* (Garden City, N. Y. : Doubleday and Co., Inc., 1959, pp. 240. $3.95.)

THE SYMPTOM AS COMMUNICATION IN SCHIZOPHRENIA. Edited by *Kenneth L. Artiss.* (New York : Grune and Stratton, 1959, pp. 233. $6.00.)

Two fine new books on communication patterning call for attentive consideration by psychiatrists and other behavioral scientists. The first is written by an anthropologist with experience in the training of federal government employees for foreign service, a service in which mistakes and ineptitudes have provided material for a vigorously critical nonprofessional literature. Beginning with the observation that standards of behavior appropriate to one societal matrix may be completely misunderstood in another, Dr. Hall outlines an original theory of the nature of culture, treating it consistently as a form of communication. Ten "primary message systems" are described (interaction, association, subsistence, bisexuality, territormality, temporality, learning, play, defense, and exploitation). The book is written in lucid style and is a fundamental contribution to the science. Its heuristic value is likely to be high.

Dr. Artiss edits the second book, a group study of schizophrenia from Walter Reed Army Institute of Research. The symptomatology of schizophrenia is seen as a communication device in the transactions between the patient and others. The schizophrenic is described as operating within a pattern of dilemmas—dependency preventing independence, omnipotent self-evaluation in the face of failure, hostility provoking retaliation, and avoidance provoking rejection. Within these dilemmas, the symptoms were useful and available reaction patterns "accomplishing" the rejection of the person from the family, from work groups, from the Army group, and from the ward population. The odd and different soldier, performing poorly, unable to make friends and preoccupied with himself, replicated a series of negotiations proven by his past experience to lead to maximum comfort. He reassumed his unique and isolated position, and with the aid of those about him, confirmed his differentness and inability to perform. In hospital, the sought-for position of isolation and persecution could not easily be maintained in the face of very different group pressures. The ward culture sought to avoid a consensus of difference, to avoid relieving him of responsibility for poor performance and failure, to avoid further isolation from effective learning, to avoid confirming with him his non-need to learn. The fundamental function of the psychotic symptom—the avoidance of group status—was not allowed to operate. When the patient was able to "join" the patient or staff group, a reciprocal symptom loss followed. Parallel studies on the families of schizophrenics revealed an atmosphere of chronic, basic discontent. The intrafamilial relationships were often improved by the hospitalization of the member in the "sick" role.

These books bring a measure of integration between the fields of information transmission, comparative cultural anthropology, education, and therapy. Both are models of methodology. They will give a refreshing redirection to the clinic worker and to the investigator.

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HANDBOOK OF SOCIAL GERONTOLOGY : SOCIETAL ASPECTS OF AGING. Edited by *Clark Tibbitts.* (University of Chicago Press, 1960, pp. 770. $10.00.)

This important volume represents a first attempt to give form to a new field of research and knowledge—social gerontology. Social gerontology is concerned with (a) the phenomena of aging which are related to man as a member of the social group and of society, and (b) those phenomena which are relevant to aging in the nature and function of the social system or society itself. The contents are as follows : Clark Tibbitts, "Origin, Scope, and Fields of Social Gerontology" ; Harry D. Sheldon, "The Changing Demographic Profile" ; Leo W. Simmons, "Aging in Preindustrial Societies" ; Fred Cottrell, "The Technological and Societal Basis of Aging" ; Eugene A. Friedmann, "The Impact of Aging on the Social Structure" ; Leonard Z. Breen, "The Aging Individual" ; Eugene A. Confrey and Marcus S. Goldstein, "The Health Status of Aging People" ; Margaret S. Gordon,

"Aging and Income Security"; Richard H. Williams, "Changing Status, Roles, and Relationships"; Fred Slavick and Seymour L. Wolfbein, "The Evolving Work-Life Pattern"; Wilma Donahue, Harold L. Orbach, and Otto Pollak, "Retirement: The Emerging Social Pattern"; Max Kaplan, "The Uses of Leisure"; Gordon F. Streib and Wayne E. Thompson, "The Older Person in a Family Context"; John W. McConnell, "Aging and the Economy"; George Rosen, "Health-Programs for an Aging Population"; Walter K. Vivrett, "Housing and Community Settings for Older People"; Fred Cottrell, "Governmental Functions and the Politics of Age"; Arnold M. Rose, "The Impact of Aging on Voluntary Associations"; Paul B. Maves, "Aging, Religion, and the Church." There are indexes of names and subject.

A fundamental volume.

ASHLEY MONTAGU, PH.D.,
Princeton, N. J.

BIOCHEMISTRY OF HUMAN GENETICS. Ciba Foundation Symposium. Edited by *G. E. W. Wolstenholme* and *C. M. O'Connor*. (Boston: Little, Brown and Co., 1959, pp. 360, ill. 61. $9.50.)

Of the 4 anniversary symposia sponsored by the Ciba Foundation in 1959 to mark its tenth year of successful promotion of "international cooperation in medical and chemical research" (London, Buenos Aires, Naples, Paris), that on human biochemical genetics at the University of Naples (May 13-16) was co-sponsored by the International Union of Biological Sciences and chaired by Montalenti. Focused on highly refined laboratory techniques for studying the biochemistry of gene action, the proceedings of this timely and well-organized conference provide an authoritative survey of the remarkable progress which in the analysis of human traits has been made in identifying "the direct line of causation from a genic structure, with known chromosomal location, to the corresponding visible character." As Penrose emphasizes in the introduction, biochemical methods are now in the ascendant, while statistical arguments about exact Mendelian ratios have become less cogent.

In line with the selective policies of the sponsor, the conference was attended by a limited number of specialists in biochemical and cytological genetics (29 experts from 6 Western countries), with formal papers contributed by 14 of them. The subjects covered include galactosemia (Kalckar); defective sense perception (Kalmus); primaquine sensitivity of erythrocytes (Childs and Zinkham); fetal and abnormal hemoglobins (Rossi-Fanelli, *et al.*, Itano, *et al.*, Hunt and Ingram); the synthesis of the haptoglobin system (Smithies and Connell), gamma globulin molecule (Grubb) and specific blood group substances (Morgan, Watkins, Ceppellini); and the genetic control of cholinesterase concentrations (Kalow) and plasma protein variants (Harris, *et al.*). Each section is followed by the transcript of an animated group discussion, thus aiming at presenting a well-rounded picture of the current state of knowledge in important frontier areas begging for the collaborative efforts of the biochemist, cytologist and geneticist.

The last part of the book deals with a panel discussion of technical problems encountered in bacterial genetics and modern tissue culture work (Luria, Cavalli-Sforza, Eagle, Lederberg, Pontecorvo). Of particular interest are the questions raised by Eagle regarding the immediate usefulness of observations derived from cultures of dispersed cells as distinguished from explant cultures of organized bits of tissues. While cultured cells show a remarkable degree of uniformity in their nutritional requirements, they tend to use their metabolic machinery for purposes of growth rather than the desired differentiation of specialized organ function.

As an age-specific growth record of a dynamically developing discipline with a bright future, this book will be of intrinsic merit and bibliographic interest for many years to come. It is carefully edited and upholds the fine standards set by publications of the parent organization. The only disappointing feature is the immoderate price difference between the English and American editions.

New York 32, N. Y.
FRANZ J. KALLMANN, M.D.

MENTAL HEALTH, THE NURSE AND THE PATIENT. By *Doris M. Odlum*. (Philadelphia: J. P. Lippincott Co., 1960, pp. 190.)

This book has been adapted by Miss Ethel Johns from the third edition of the book *Psychology, the Nurse and the Patient*.

The author deals with the psychological aspects of illness. The first few chapters deal simply and briefly with a general psychological approach.

The next chapters apply psychology more specifically to a number of situations which arise in nursing. These situations which Miss Odlum has chosen are practical and applicable in many areas. In this edition greater emphasis is placed on the patient outside of hospital.

In the last few chapters of the book there is a brief discussion of the psychoses and the psychoneuroses including methods of treatments. The role of the nurse in the care of the mentally ill patients is considered.

The book is short, easy to read and the illustrations generally are applicable to our situations. The presentation and choice of material at times appear uneven. The book would be a useful reference on an elementary

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THE ANTECEDENTS OF MAN. By *W E. Le Gros Clark.* (Chicago : Quadrangle Books, 1960, pp. 374. $6.00.)

Knowledge relating to the physical evolution in man has increased apace in recent years. In the present volume one of the soundest students and most lucid writers on man's evolution presents the facts which will lead the reader to a thorough understanding of the antecedents of that ornery creature, so prematurely named *Homo sapiens*. The book is excellently illustrated, and since the author is a leading neuroanatomist, his discussions of the evolution of the brain and special senses are particularly stimulating.

ASHLEY MONTAGU, PH.D.,
Princeton, N. J.

DREAMS AND PERSONALITY DYNAMICS. By *Manfred F. DeMartino, M.A.* (Springfield, Ill. : Charles C Thomas, 1959, pp. 377.)

This book is a compilation of 28 articles of theoretical, clinical, empirical, experimental and statistical nature, proposed to be of interest and value not only to students, psychological clinicians, and those who practice dream analysis, but also to academic psychologists. The editor hopes to stimulate interest in dream research to fill in gaps that are present in personality theory. The papers are selected from a period of American research from 1930 to 1958. Only one foreign paper is included, by Boss. All the papers have been previously published with the exception of one which is a doctoral dissertation. (One exceedingly valuable footnote in the book lists a number of unpublished masters' and doctoral theses on dream analysis.) Almost all of the papers have been abridged. Curiously enough a valuable feature for further study and research has been omitted, namely, the bibliographies at the end of each paper.

An editor must, from the vast literature on the subject, choose only a certain number of papers which he considers representative of the field ; therefore, a certain amount of arbitrariness enters into his selections. For what DeMartino intended for his book he has done rather well. Some outstanding papers are included : the excellent paper on "The Dreamer" by Gardner Murphy and Calvin S. Hall's "Cognitive Theory of Dreams."

I happen to find particularly interesting and informative Harry B. Weiss's "Oneirocritica Americana" on the 18th and 19th century American "Dream Books" ; McCurdy's "History of Dream Theory" systematizing the approaches of ancients towards the study of dreams, a worthwhile elaboration of Freud's remarks about ancient dream interpretation. The editor's "Review of the Literature on Children's Dreams" is valuable.

Following the introduction is a section on empirical and statistical studies, including one chapter on "Nocturnal Sex Dreams" by Kinsey and his associates. Then follows a section on experimental and theoretical studies with papers by Irving Harris and Calvin Hall on anxiety dreams. The section on "Personality Correlates of Dreams" consists of 4 papers : Meer's "Authoritarian Attitudes in Dreams," Saul's and his associates' paper on the "Quantifications of Hostility in Dreams," Doust's "Studies in Physiology of Awareness" and Boss's "Psychopathology in Dreams in Schizophrenia and Organic Psychoses."

The section on methods of dream analysis is rather mixed. The paper by Hall on diagnosing personality by analysis of dreams is quite good especially because it contains a section on methods of validation. Of the host of papers in the last 30 years on dream analysis, why the one on the technique of dream analysis by Otto Kant was selected for publication is not altogether clear, since there are numerous papers more representative of recognized meaningful methods than the ideas presented by Kant's paper. This reviewer is still at a loss after several readings to understand what Kant means by saying that a "dream should be interpreted as little as possible, it should be read."

The section on the use of hypnosis includes the by now classical paper by Leslie H. Farber and Charles Fisher, and the excellent "Dreams and Hypnosis" by Margaret Brenman. The longest paper in this section is quite an abridged version of David B. Klein's study of 30 years ago on the experimental production of dreams during hypnosis. I suppose one of the values for the inclusion of this latter un-

imaginative work is that it is not too well known.

The last section reprints papers on dreams and projective techniques and on the physiological correlates of dreams, the latter containing the well known papers by Dement, Kleitman and Wolpert.

As one can note from the above, the book is eclectic and has therefore the advantages and disadvantages of such an approach. It is useful as a reference source, but might have been more so.

NORMAN REIDER, M.D.,
San Francisco, Calif.

PRACTICAL NEUROLOGICAL DIAGNOSIS. By *R. Glen Spurling.* (Springfield, Ill. : Charles C Thomas, pp. 284. $6.75.)

The reviewer is hesitant to be critical of this little book written by a senior neurosurgeon. However, he believes many neurologists and many modern neurosurgeons would not consider it adequate nor sufficiently accurate for their students at any level. The adjective "practical" in the title of any book should not absolve the author from accuracy or from giving adequate detail of the subject under discussion. These points of criticism will be illustrated. Unfortunately, too, the style of writing is lacking in smoothness. The book does not make the clinical correlations with anatomy and physiology sufficiently clear nor does it outline a method of thinking through these correlations. The correlations come mainly in the form of dogmatic statements.

The "Cushing outline" of history and examination has much to commend it but it does emphasize localization at the expense of gathering facts, thinking of disturbed functions and then making interpretations of localization. Unfortunately, tradition and convenience have partly sustained this approach especially with reference to the study of cranial nerves. For example, doctors and students sometimes speak and actually think of facial weakness as something wrong with the 7th nerve even though the causative lesion is in the cortex or in the muscles. This book does not help to correct this erroneous approach. Another error in the outline is to list the sign of Romberg under cerebellar functions. This is a common error but a text should help to correct it. To use this sign in this way makes it meaningless. The methods of eliciting, as well as interpreting, reflexes are inadequately discussed.

In a book devoted to practical considerations one would expect the reader to be guided quickly to an understanding of how to hear cranial bruits. Important features of auscultation are neglected and no mention is made of what one might call the best listening points over the head. The section on vision leaves much to be desired in every way. Good coloured pictures rather than drawings should be used as illustrations of papilledema. The chapter on lumbar puncture and spinal fluid does not outline the necessary detail which would guide a student either as to the examination of it or interpretation of the findings. Why does the author state that a lumbar puncture should not be done in the office ? No mention is made of spinning down the red blood cells, when a bloody tap is obtained, before interpreting the appearance of the fluid. Why not say something of total protein in ventricular fluid as compared with that in the lumbar sac ? The reviewer believes it would be wiser to omit the section than omit discussion of generally accepted points of importance in evaluating the study of spinal fluid.

The book is for students, interns and residents, but the reviewer does not believe it fulfills its designated purpose and believes the student and doctor will find more adequate information and more deductive methods of making correlations outlined in many of the standard texts of neurology.

ALAN A. BAILEY, M.D.,
Saskatoon, Sask.

OPERATIONAL VALUES IN PSYCHOTHERAPY. By *Donald D. Glad, Ph.D.* (New York : Oxford University Press, 1959.)

Despite its rather foreboding title, Dr. Glad has written a most understandable and eminently useful treatise. This volume represents more than a decade of work by Dr. Glad and a devoted coterie of students and associates. Its basic premise is that the psychotherapist's own personal value system will largely determine the "school" of psychotherapy he embraces, the operational procedures he pursues, and the type of therapeutic results he accomplishes. With this in mind, the author explores various aspects of Freudian, Sullivanian, Rankian and Rogerian therapy—as examples of current dynamic schools representing different value systems and different operational rules. The result is a critical second look at many of our cherished and unexplored faiths.

Many psychotherapists, particularly psychiatrists, will read this book with some dismay. It suggests that we may need to broaden our approach to understanding personality and

vary our techniques in psychotherapy from patient to patient. This work may bring to our attention a degree of professional short-sightedness and stir up anxieties and some animosities. The information presented is derived from controlled research and statistical analysis which at times makes difficult reading for the clinician. It may further cause some discomfort to the clinician in questioning the validity of using a single frame of reference in the diagnostic and psychotherapeutic approach to patients. The implications of this book are such as to shake one out of the security of using a single approach in dealing with patients and their emotional difficulties.

Dr. Glad's basic thesis suggests that the closer the patient's initial personality is to the goals of the therapist and the techniques of therapy derived therefrom, the sooner the patient can be expected to progress toward recovery with the latter refined in terms of the patient's achievement of the therapist's goals. Thus Dr. Glad suggests a need for shaping the therapist's theoretically derived method of treatment very early and very perceptively to the personality organization of the patient. This implies a need for careful psychiatric and psychological studies of each patient being considered for therapy and further underlines the need for a great deal of flexibility on the part of the therapist in the therapeutic techniques he applies. It further implies that the psychotherapist must have a broad background in clinical experience using different types of therapeutic approaches to different patients. This has many implications also from the standpoint of psychiatric education and would suggest the need in psychiatric training programs for a truly eclectic and broadly based approach to the teaching of psycho-dynamics and psychotherapy.

For the psychologist and psychiatrist particularly interested in research methodology, one will find the discussion of a technique for the study of change during therapy—a method that is as free as possible from a dependence, in the evaluation of the results of therapy, on our subjective, wish-fulfilling judgments which are so common in the literature today. Using this methodology Dr. Glad has very cogently illustrated and put to careful research test many of the hypotheses he has offered.

The basic thesis is both intriguing and promising and one that can only be worked out by further painstaking research, statistical analysis and follow-up. His readers will wish him the strength and stick-to-it-iveness to continue in this pioneer venture. Only through such works can psychotherapy be put into an operational frame where it may be objectively studied. Every psychiatrist, psychologist, sociologist and clinician whose work brings them into the therapy field will do well to re-explore basic concepts with Dr. Glad.

FRANKLIN G. EBAUGH, M.D.,
Denver, Col.

NEUROPHARMACOLOGY. Edited by *Harold A. Abramson, M.D.* (New York City: Josiah Macy, Jr. Foundation, 1959, pp. 285. $5.00.)

This is the transcript of the 4 discussions of the Fourth Josiah Macy Conference on Neuropharmacology held in September 1957. The verbatim style permits the reader to see the questions and doubts which arose in the mind of each participant but also records many sentences unfinished when someone interrupted, and deviations from the main topic. Considerable discussion is devoted to technical details of interest primarily to those attempting similar studies. Although there is no summary or conclusion and although one must read the entire text carefully to extract their ideas, these are quite valuable in furthering one's understanding of the biochemistry behind the actions of many psychopharmacologic products. Two short discussions deal with the effects of respiratory inhibitors upon Siamese fighting fish and the reactions of monkeys to electrical stimulation of various areas of the brain. The longer discussions deal with taraxein and its clinical effects and with the relationship between the chemical structure and physiologic action of various phenalkylamines and mescaline.

Taraxein is the name given by Heath to a labile substance found in the sera of schizophrenic patients which induce schizophrenic symptoms in normal individuals if administered rapidly by vein. Taraxein from a catatonic patient may induce paranoid symptoms as often as catatonic ones; which symptoms will appear in a given individual could not be predicted despite previous personality studies by as many as four psychiatrists. A spike discharge in the limbic areas was said to be constantly present in schizophrenics and "to accurately reflect the intensity of psychotic behavior." Taraxein was postulated to produce this action by altering the blood-brain barrier to permit normally occurring metabolites to gain entry into the brain cells resulting in both disordered electrical and psychic function. This postulate was not generally accepted and others had not been able to produce any effects by injections of taraxein. This most

interesting step in the search for a biochemical explanation of schizophrenia was left an open question pending further study.

Ceruloplasmin was mentioned frequently in both this discussion and in the last one as being involved in some fashion in mental disease. Its blood level is increased in any acute emotional state but is normal in chronic schizophrenics; it is increased by certain drugs but decreased by close analogues. Heath suggested it might act by metabolizing the excessive amines entering cells following alteration of membrane permeability (by taraxein) and reported some success in removing schizophrenic symptoms by its intravenous use. All agreed it acts as a phenol or catechol oxidase rather than attacking the C-N linkage as do the mono-amine oxidases but beyond that there was no general agreement.

The relations between the chemical structure and physiologic action of mescaline and phenalkylamines was discussed in great detail especially in relation to mono-amine oxidase. When this enzyme was inhibited, the metabolism shifted to an alternate pathway producing different degradation products which might induce alterations in physiologic and psychic responses. It is possible that the fact that a drug may act upon the peripheral nervous system to one degree and upon the central system to a different degree may be the result of the original drug or one metabolite acting at one site whereas another metabolite is active at the second site due to selectivity of the cells. Mullins theory is presented in which excitability of neurones is altered by changes in cell membrane permeability which will alter the passive flow of ions through the membrane and also the rate at which the cell pumps out excessive sodium. The drug molecule which most closely complements in size and spatial configuration the surface pattern of the cell will have the greatest potency. Small molecules fit crudely into many spaces and result in a very general action. Large molecules will find only few cells with the proper complementary surface configuration but will fit these most accurately and will therefore be quite specific and selective in their action.

ROBERT R. SCHOPBACH, M.D.,
Henry Ford Hospital, Detroit.

ANATOMY: A REGIONAL STUDY OF HUMAN STRUCTURE. By *Ernest Gardner, Donald J. Gray,* and *Ronan O'Rahilly.* (Philadelphia: W. B. Saunders, pp. 999. $15.00.)

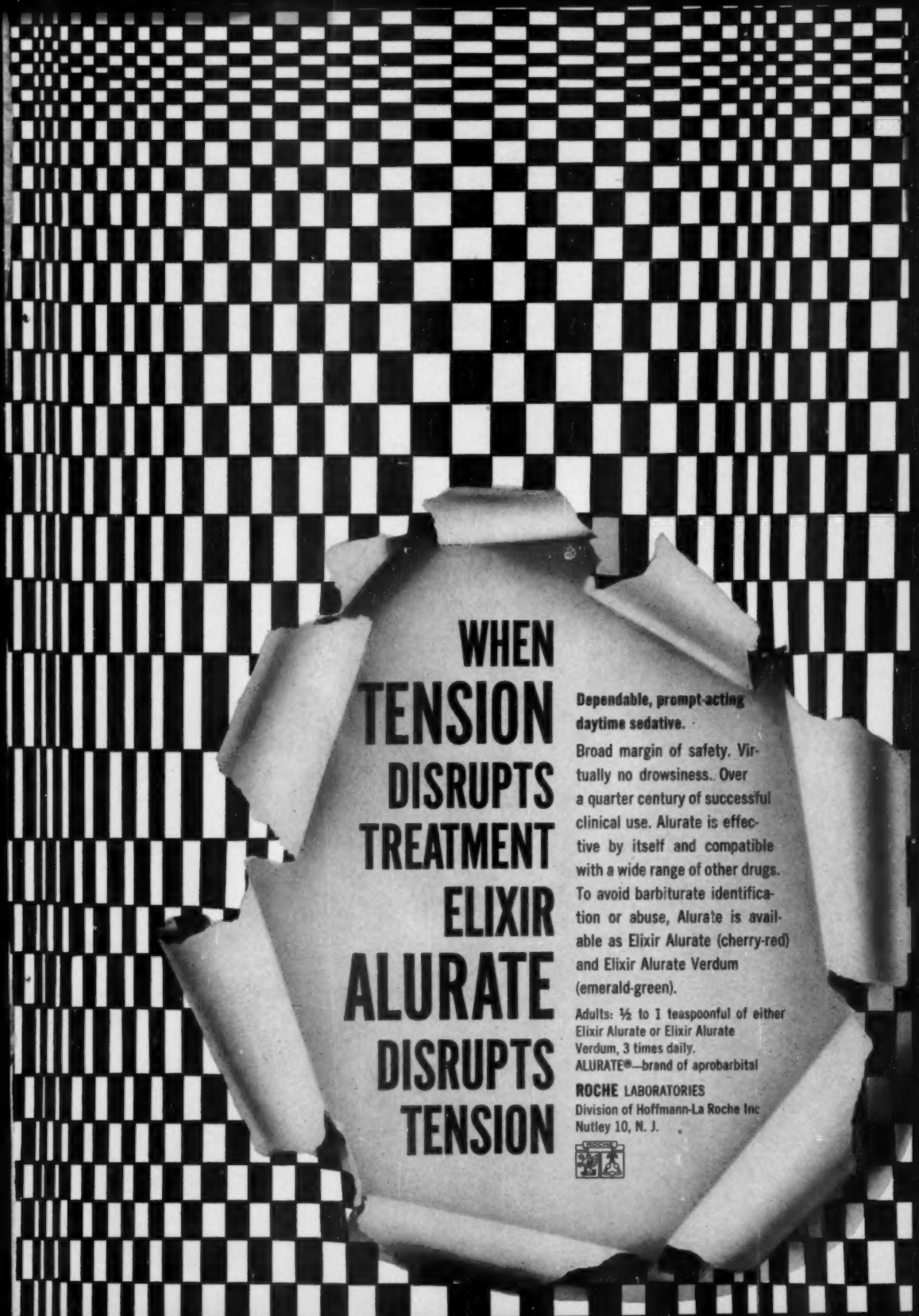
This is a book on Gross Anatomy. It is directed to undergraduate medical and dental students, to provide information on living anatomy, and, by citation of relevant references, to meet the needs of the more advanced student and the postgraduate worker.

Introductory remarks include high lights on the History of Anatomy and guidance to anatomical literature and periodicals. Then come a hundred-odd pages on General Anatomy where consideration is given to the systems, to development and growth, and to radiological anatomy. Regional Anatomy occupies the following 845 pages; neuroanatomy, being a specialized field, is largely omitted. The concluding pages consists of an ample glossary of eponymous terms and a good index.

The illustrations, all in black and white, are numerous. In large measure they have been borrowed and re-drawn from contemporary sources and duly acknowledged. Some, perhaps, are rather bold and rugged, and some would have been more effective if it had not been necessary to reduce them to fit the available space—but, they fulfil their intended purpose. There are 64 good radiographic plates.

To write concisely both for the novice and for the research worker is a problem which the authors have largely overcome: in part by the use of large and small types, and in part by the profuse use of footnotes. The footnotes include derivations of words, definitions of terms, comments, documentary authority for statements in the text, and references to recent articles and to wider reading. Therein the book excels.

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*Kinross-Wright, J.: Newer phenothiazine drugs in treatment of nervous disorders, J.A.M.A. 170:1283, July 11, 1959

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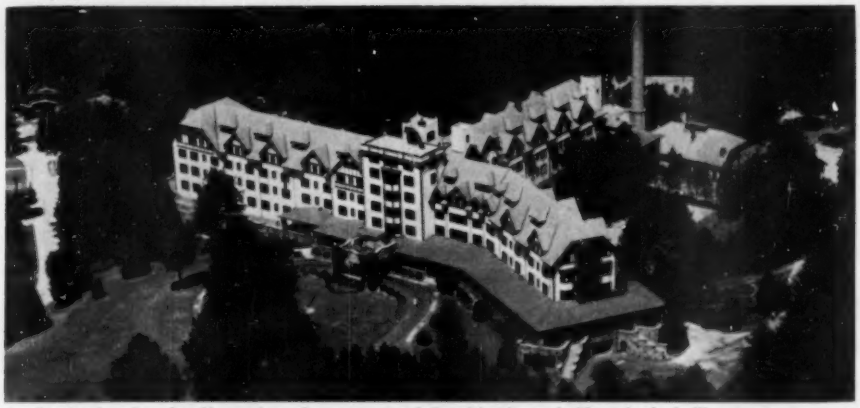
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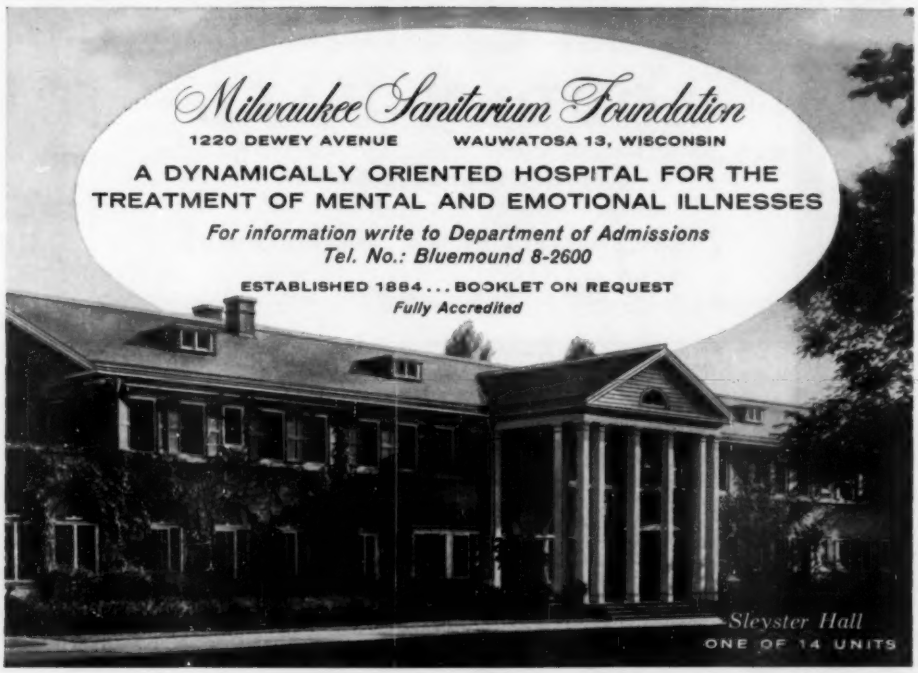
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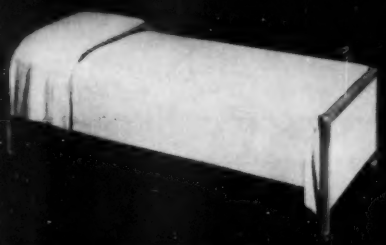
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